A Lecture
ON
CLIMATE IN RELATION TO HEALTH.[1]

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GENTLEMEN,—My predecessors in this course of lectures have described to you with great clearness the elements of climate, and it falls to my lot to discuss the relations of these elements to what we are all interested in—viz., the health of the community. For medical officers of health the climate of the district ought to be as much studied as its drainage and water-supply, though perhaps the latter are more under control, but an intimate knowledge of the climate will often clear up ambiguities of results in sickness and mortality statistics and enable certain precautions to be taken which may prove of the greatest advantage to those entrusted to your care. Though many bulky volumes have been contributed to the various aspects of health and climate, it cannot be said that definite laws have as yet been laid down as to their exact connexion, and chiefly because the collected facts, on which such rules might be based, are still insufficient in number; for only by analysing a very large amount of evidence can satisfactory conclusions be arrived at. Mortality bills and death-rates where established have done something, and army and naval medical reports, dealing as they do with large bodies of picked men—for the most part of the same nationality, serving in different quarters of the globe, and thus exposed to several climates in succession—have perhaps done more still, and probably this is the right direction for future labours. Another difficulty lies in the great change that has been wrought in our knowledge of the etiology and pathology of many of the diseases which we formerly assigned to climate causes. This list was at one time a long one, but has been gradually undergoing reduction. Many diseases, such as dysentery and cholera, have been traced to the drinking of impure water, others, like yellow fever, to endemic and not climatic origin, and in the great majority a bacterial origin seems highly probable, which has been traced in malarious and in other fevers.

Whilst recognising the germ origin of many of these maladies, we must not forget that while climate is not the actual *vera causa*, it may, and probably does, constitute the principal conditions under which the germs develop, grow, multiply, and diffuse themselves, thus becoming of nearly equal importance to the germs. A glance at the geographical distribution of yellow fever or dysentery will show that they only prevail in tropical or subtropical regions, and that they require a certain degree of temperature for their development. Yellow fever is perhaps more controlled by climate than any fever, for it is only found between 32·70° N. and 22·5° S. latitude. It prevails, as you know, in the West Indies, the Gulf of Mexico, and along the coast of South America as far south as Buenos Ayres, and has occasionally crossed the Atlantic to the Cape de Verde Islands and Cape Coast Castle on the coast of Africa, and even on rare occasions it has penetrated to the south of Spain and to the shores of the Mediterranean. Its relation to climate is shown by its requiring for its existence and diffusion a temperature of not less than 70° F., together with a certain degree of moisture. It can only prevail during hot and moist seasons, but is extinguished by a heavy rainfall, by cold winds, and by frost or snow. It exists at sea level and is rarely found at any considerable elevation above the sea. It infests seaports and, as a rule, the most crowded and insanitary quarters; it spreads by infection and attacks strangers coming from northern countries in preference to natives. Some races, as the negroes and Chinese, are exempt. Dysentery, again, though doubtless due to bad drinking water, unwholesome food, and imperfect drainage, and thus liable to prevail in temperate countries, is unquestionably far more common and serious in tropical regions, the conditions of heat and moisture favouring the growth of its element of causation.

Before proceeding further it may be well to make some arrangement of the subjects of this lecture, and a convenient one seems to be the division of the relation of health and disease to climate into (1) how far climate is injurious to health, and (2) how far it is beneficial to health.

Taking the first, we ask, In what way is climate injurious to health? and, proceeding to the discussion of the elements of climate, we select temperature, and inquire as to the effects of heat and cold on human beings. Now it is often maintained that the human race can live and flourish in any climate; but this can only be accepted under certain limitations. We find great heat can be borne by individuals, provided the action of the skin be free and the period of probation be not too long. Tillet[2] states that, in the town of La Rochefoucauld, at the bakeries, the female assistants, as a rule, remained ten minutes in the oven at 132° C. (301·6° F.) without much suffering; but far more instructive was the well-known example of Messrs. Blagden, Fordyce, Banks, and Solander, who endured a temperature of 260° F. with the small rise of body heat of 2·5°, but if the air became moist and evaporation was hindered the temperature of the body rose 8°. In the same oven with the observers eggs became hard in twenty minutes, a beef-steak was cooked in half an hour, and water boiled.

The presence of excess of moisture in the air seems to check free perspiration and give rise to *insolatio*, or sunstroke, at comparatively moderate temperatures, as the following instance shows. On July 8th, 1853, 1200 soldiers marched out of the camp of Beverloo in Belgium for Hasselt, and in the evening only 500 arrived; nineteen died from sunstroke, and a large number went mad and had to be confined on arrival in the hospital. Nevertheless, the shade temperature that day did not exceed 35° C. (95° F.). MM. Mahmoud and Ismael, Egyptian astronomers, told M. Quêtelet that they suffered more from a temperature of 30·7° C. (87° F.) at Brussels than from one of 50° C. (122° F.) at Cairo, owing to the extreme dryness of the air in the latter city.[3]

The evidence of the United States is to the same effect, for while at the Atlantic coast and in central sections of that country, where the rainfall is considerable and the atmosphere moist, sunstroke is far from uncommon, as General Greely[4] says, "the inhabitants of the eastern coast bear with amazement of temperatures of from 118° to 128° F. being tolerated in the dry region of Arizona and South Colorado without harm, and that the ordinary avocations of farm and factory are pursued without inconvenience." This is due to the easy production of perspiration and to the rapid evaporation from the surface of the body. Hence no suffering ensues under this great heat, and sunstroke is unknown.

The effect of great heat on different organs of the body is as follows. In the case of the lungs it reduces the number of respirations from 16, the standard in temperate climes, to 12·74 in the tropics, accompanied by a slight spirometric increase, but not enough to account for the decreased number of respirations, and so the respiratory function is diminished 8·45 per cent. The water exhaled from the lungs is reduced, and the observations of Parkes and Francis show that the lungs of Europeans dying in India are lighter than the European standard after death, proving that these organs, being brought less into physiological activity, diminish in size. The heart's action does not appear to be materially quickened or the pulse-rate increased in the tropics, but the powers of digestion are weakened, the appetite fails, and the liver becomes congested and tends either to tissue induration or abscess. The urine is lessened in amount and the urea reduced, possibly from the smaller amount of animal food consumed. The skin acts freely, and its secretion is stated to increase 24 per cent. in the tropics. The nervous system is depressed, and sleep is not so sound as in temperate or cold climates.

Protracted residence in hot countries induces further deterioration in Europeans, impairing the functions of digestion, assimilation, and circulation, and hence the power of making healthy tissue; the tint of the skin and the colour of the conjunctivæ, and also the expression of premature age proclaim the length of a European's residence in the tropics. European children demonstrate most forcibly the unfavourable effects of hot climates. In India it is generally thought desirable to send them at an early age to a cold climate, like

[1] One of a course arranged by the Royal Meteorological Society and the Sanitary Institute for medical officers of health.

[2] Boudin: Géographie Médicale.

[3] Ibid., vol. i., p. 397.

[4] American Weather

that of the Hill stations or of this country, to escape the effect of the tropical heat, and few sights are more pleasing than to see these puny, pallid, skinny, fretful little ones converted by British food and British meteorology into fat, blooming, and happy English children.

The most obvious effect, however, of great heat is sunstroke, which occasionally occurs in temperate as well as in tropical climates, and, though principally due to exposure to the solar rays, according to Sir Joseph Fayrer happens frequently to people in houses and in barracks and tents, and not only when they are exposed to sun heat; it may occur by night as well as by day. The subjects of sunstroke are generally those debilitated by disordered health, dissipation, and overfatigue. According to the authority mentioned, there are three varieties of sunstroke, each characterised by a certain group of symptoms: the first shows itself in exhaustion or failure of the heart's action; the second in a condition of shock in which the nerve centres, and especially the respiratory nerve centre, become implicated, causing rapid failure of respiration and circulation; and the chief feature of the third is intense pyrexia due to vaso-motor paralysis and to the nervous centres being over-stimulated and then exhausted by the action of heat on the body generally. From the first form recovery is frequent, but the second is far more serious, and is generally due to the direct action of the sun's rays on the head and spine. The brain and nerve centres, including the respiratory nerve centre, are overwhelmed by the sudden rise of temperature; respiration and circulation fail, and the heart is found contracted after death. The symptoms of this form are generally those of violent injury to the nerve centres, unconsciousness, cold skin, feeble pulse, and death from rapid failure of respiration and circulation. The third form, the so-called "heat fever," is an intense state of feverishness, the effect of heat on the nerve centres, and through them on the vaso-motor system, resulting in the raising of the body temperature to as high as 108° or 110° F., or even higher, by heat, solar or artificial. This is the form which comes on at night or in the shade, if the temperature be high, and chiefly affects those exhausted by dissipation, fatigue, or over-crowding. Sir Joseph Fayrer teaches us that all the nerve centres suffer from over-stimulation, followed by exhaustion; there is dyspnœa of a hurried, gasping kind, great restlessness, thirst, frequent micturition, and pungent heat of skin, which is sometimes dry and sometimes moist. The pulse varies from full and laboured to quick and jerking, the face, head, and neck are congested to lividity, and the pupils, at first contracted, may dilate before death. Delirious convulsions, often epileptiform, coma, relaxation of the sphincters, and suppression of urine precede the end, but not infrequently partial recovery takes place, to be followed later by relapse and death. The mortality of sunstroke is between 40 and 50 per cent., but of those who recover many are permanently injured either in brain power or in general health, and we find as a result impairment of memory, nervous irritability, headache and even epilepsy, partial paraplegia, partial or complete blindness, and extreme intolerance of heat and especially of the sun's rays. There are, however, cases of recovery from sunstroke, especially when contracted in temperate climates, which are either complete or present less serious lesions than the above. In fatal cases, after death, the lungs are found deeply congested, the heart firmly contracted, the venous system gorged, and the body marked by petechiæ. The blood is more fluid than usual and acid in reaction; the globules have less tendency than usual to form rouleaux, and are deficient in oxygen. The body, after death, for some time retains a high temperature, and the viscera, when first exposed, feel pungently hot, and, when incised, drip dark blood. The brain and the membranes are intensely congested and there are sometimes serous effusions into the ventricles or hæmorrhages into the brain substance. The cause of death is generally asphyxia, but apoplexy is occasionally found.

The human frame is able to withstand great extremes of cold when properly clothed and fed to meet the contingency, and, above all, if the atmosphere be still. Arctic voyagers have noted extraordinarily low temperatures. Sir John Franklin recorded a temperature of −58° F., or 90° below freezing point, and Sir George Back one of −70°, or 102° below it. The lowest temperature seems to have been recorded at Werchojansk in Siberia, which was −90°, or 122° below freezing point, and this cheerless station in the valley of the Iana, owing to its latitude, receives no sunshine during December, and for the rest of the winter the sun is so little above the horizon that its rays have not sufficient power to counteract the intense cold caused by radiation. If exposure to cold be prolonged, and the circulatory and thermogenic powers cannot be maintained, the smaller arteries and capillaries contract and no longer permit the passage of blood-corpuscles, and all physiological and chemical changes are arrested. Various parts, including the extremities, become starved, and death of certain parts takes place by frost-bite or gangrene, commencing first in the toes and fingers. The effect on the blood, as seen in Drs. Bristowe's and Copeman's experiments in a case of paroxysmal hæmoglobinuria, shows rapid and wholesale destruction of the red globules. Prolonged exposure to extreme cold gives rise to languor and lowering of the sensibility. The individual loses all power of reaction, and sinks to sleep, often to wake no more, as is witnessed on the long marches of troops through the snow, the form of death being coma. Another effect of cold is to produce brain excitement, delirium, incoherency and thickness of speech, and symptoms like those of intoxication. Death occurs by syncope or asphyxia. It was remarked by the famous Larrey during the retreat from Moscow that the troops which endured the cold best were not the northern ones, but the southern, such as the Spaniards, Italians, and Southern French, who resisted the cold better and maintained their discipline for a longer period.

A difficult question to answer is how atmospheric humidity influences human life, because in most cases this is largely mixed with soil humidity. The last has been shown to have considerable effect on the causation of disease, and we know that it is an important factor in the production of phthisis, bronchitis, and rheumatism, as the researches of Buchanan, Bowditch, and others have shown. Climates where there is much humidity and a large rainfall, while highly beneficial to vegetation, may act injuriously on human life in two ways: firstly, by raising the level of the subsoil water, and thus rendering buildings and surroundings damp, for in this way it promotes rheumatism, bronchitis, and possibly phthisis; and, secondly, by obscuring or diminishing the wholesome effects of the sun's rays, for, while undoubtedly the tints of British complexions, as contrasted with those of continental or Southern nations, owe much to the moist, vaporous envelope through which the sun has to shine on our isles, yet it must be remembered that a certain percentage of sunshine is requisite for the full development of the process of sanguification, and recent observations show that in misty districts with a large rainfall, like Dartmoor, the prevalent disease is anæmia. Sunshine has been demonstrated to exercise a bactericidal effect on pathogenic and other organisms, and to hinder the evolution of the tubercle bacillus.

Among the elements of climate which affect health or disease is wind, and it may be safely asserted that, as a rule, it exercises a beneficial influence in removing exhalations of all kinds, in producing evaporation from the body surface, and in promoting the complete ventilation of the atmosphere. Calmness and stillness of air are favourable to bacterial growth and multiplication, whereas a strong northerly or north-easterly wind is generally the means of sweeping away the residue of an epidemic which may have been lurking for some time in a neighbourhood. So, though a wind blowing from a hot or from a cold quarter may prove an unwelcome guest to the region visited, yet, on the whole, it is the means of equalising climate and of distributing moisture by aerial circulation.

Coming now to diseases prevailing in hot climates, and apparently dependent for such prevalence on the special conditions of those climates, it will be noted that dysentery and its frequent companion, which is also not rarely its sequela, liver disease, form part of the group. A map of the geographical distribution of these diseases shows that liver disease is confined to hot countries, and does not largely overstep the limits of the tropics, whereas dysentery has a somewhat wide range, but prevails with far greater virulence in the tropics compared with subtropical and temperate regions. Sir Joseph Fayrer shows that at Calcutta the deaths from dysentery and diarrhœa amounted in one year to 1516, and that the mortality from these causes was highest in January (243 deaths) and lowest in May (85 deaths). Dysentery is often attributable to drinking impure water, and to insanitary surroundings, as well as to malaria. Some cases appear to arise from sudden meteorological changes, such as from hot to cold and from dry to wet weather. All the causation of this disease seems to be largely governed by the influence

of climate, and hence its greater prevalence in hot climates than in cold. Liver disease in India was attributed by the late Professor Parkes to errors of diet on the part of Europeans in a hot country, and probably there is truth in this, but it can hardly account for the extensive mortality among Hindoos, Mahomedans, and other natives from this cause.

But of the many diseases linked with climate there is one which, perhaps, above all others, can be closely associated with air and soil, both of which conditions determine its prevalence and spread. I allude to malaria and malarious fevers, which prevail in all quarters of the globe, but under tropical conditions become far more virulent and enduring. In northern and temperate climates, like our own, it shows itself in various affections of the nervous system, such as migraine or megrim and other forms of neurosis; in enlarged spleen and liver; in hæmaturia and hæmoglobinuria; and, lastly, in that condition of the constitution which is termed "malarious cachexia," characterised by the state of the conjunctivæ, by the greyish-yellow tint of the skin, and by the absence of healthy colour and lack of energy. Besides these forms we have occasional, though rare, examples of intermittent fever. At one time, before the extensive operations of subsoil drainage, ague was comparatively common in Lincolnshire, Essex, and parts of Kent, but now cases are rare and often only appear after a wet season. According to a table of admissions for malarial fevers furnished by the London Hospital to Sir Joseph Fayrer, and which extend over a period of 110 years—from 1770 to 1880—whereas in 1781 out of 1781 patients admitted into the hospital 60 were for malarial fever, in 1880, out of a total of 6312 admissions, 14 were for malarious fever, and in many years the proportion was still smaller. This is a very good example of the diminution of malarial disease in the United Kingdom generally since the time when we lost kings and nobles from ague fits. As a contrast, however, Sir Joseph Fayrer teaches us that in Ceylon in ten years 94,821 persons died from ague and remittent fever, and in the Madras Presidency in one year—viz., 1880—the deaths from these causes were 209,940, increasing during a famine year (1877) to 469,241. The monthly mortality varied from 14,930 in June, 1880, to 23,969 in January, and this appears to be greater in winter than in summer, increasing apparently with the lowering of the temperature after the extreme heat. Europeans are thought to be more liable to malarial fever than natives; but this is not altogether proved, for Waring shows by a comparison of the relative prevalence of fever in the European and native troops of the Madras army for ten years—1829 to 1838—that, while the percentage of admissions from fever was for Europeans 12·8, for natives it was 16·7, and the mortality for Europeans was 0·12, against 0·24 for natives. Malarious fever prevails extensively in tropical Africa, but here natives do not seem to be as liable as Europeans; in fact, negroes were at one time held to be exempt, but Surgeon Parke proved that natives of Western and Central Africa, though they might be acclimatised at home, if they removed to another part of the country lost this immunity and were as liable to contract malarial fevers as Europeans. Therefore it will be seen that race does not ensure protection.

The close connexion of malaria with soil is shown in various ways. If the sun's rays are prevented from reaching the soil by the interposition of paving, as has been done in many parts of the city of Rome, malaria ceases, and if a marsh be flooded from the sea, and thus a layer of salt water covers the soil, malarious influences disappear. On the other hand, it is promoted by the rapid drying up of marshes, beds of rivers and streams, and especially by the breaking up of such soil, when fresh surfaces are exposed to the sun's influence. According to Parkes, the special soils which appear to promote malaria are the following: (1) alluvial soils, old estuaries, and deltas; (2) sands, if there be impermeable clay or marly subsoil, and old watercourses; (3) the lower parts of chalk, if there be a subsoil of clay or gault; (4) weathered granite trap rocks, if vegetable matter has become intermixed; and (5) rich vegetable soils at the foot of hills. Sir Joseph Fayrer holds that subsoil water or damp is the essential condition of malaria, and especially if the subsoil be impregnated with a certain amount of stagnant moisture, and this is probably present in many of those localities in which the appearance of malaria is so difficult of explanation. Malaria appears to be at its worst in the drying-up season after rains, but during the rains it is less severe. Whilst turning up new soil generally increases the danger of malaria, draining and cropping the same soil afterwards diminish it. In the south of Europe deltas of rivers and the low-lying districts with a certain amount of marsh are the common foci of malaria. Altitude exercises some protecting influence, and in South Italy in the malarious districts the villages are built on the hills for this reason; but it has been shown that wind may carry the malarial poison up the sides of mountains and, indeed, over their tops. Surgeon Parke mentioned having met with it in Equatorial Africa on a dry plain 10,000 ft. in height, so that elevation must not be reckoned on as giving complete protection. There seems to be some relation to rainfall, as in tropical countries it appears to prevail in districts with a large rainfall, as in the Indian Terai, possibly on account of the constant presence of subsoil water.

The cause of malaria is now held by competent authorities to be a protozoon or vegetable micro-organism inhabiting the blood of man and of some of the lower animals. It was discovered by Laveran[5] in 1880 in human blood at Algiers. Klebs and Tommasi-Crudeli had previously succeeded in isolating the bacillus malariæ from the low-lying atmosphere over marshes and from the soil, with which they inoculated rabbits, with the result of producing a malarial paroxysm with enlargement of the spleen; but Laveran's interesting researches, confirmed by those of Marchiafava, Osler, Vandyke, Carter, Councilman, and others, appear to point to a very close connexion between the *plasmodium*, as he calls it, and the ague attacks, and he is inclined to think that the malarial germ is a single but polymorphic organism, and that the type of the fever depends in part on the particular form of germ and in part on the condition of the patient and his tolerance of the organism. Laveran describes four forms of the protozoon: (1) amœboid spherical bodies with nuclei, (2) crescentic shapes with nuclei, (3) rosettes, and (4) flagellate bodies. These last are very delicate and are found in fresh blood and are difficult to see except when the blood is in motion. They may be contained in the blood plasma or in the substance of the red corpuscles.

In acute malarial fever the amœboid bodies are seen either occupying or adhering to a certain number of red globules, at whose expense they appear to develop, deriving their pigment from them. During the paroxysm they undergo segmentation, the resulting segments varying greatly in size and being colourless and transparent. According to Laveran the crescentic forms of the germ are common in the blood of the quartan and irregular types of disease and in malarial cachexia. They are larger in diameter than red globules, and have occasionally fine lines joining the ends of their crescents. They are said to be more common in autumn. Quinine is found to exercise some effect on the amœboid form of the germ, but less on the crescentic. The leucocytes are believed to antagonise the parasites, and spontaneous recovery from malarial fever is attributed to their destructive influence either on the germs or their toxines. Golgi thinks that there are several distinct parasites which are developed periodically, and would account for the paroxysmal character of the symptoms of ague by a correspondence with the various stages of development of the germs. He finds a plasmodium in the blood of patients several hours before the onset of the fever about a fourth the size of a red globule, which gradually occupies the red discs at the expense of their substance, which it converts into small rods and granules. The plasmodium waxes and the red corpuscle wanes until it is scarcely visible. Finally the pigment of the blood-corpuscle is gradually devoured by the parasite plasmodium, which absorbs the pigment granules into its centre and shows a marked tendency to subdivide. Radiating lines mark off its substance into separate masses. New cells are formed, which attack other red discs and destroy these in turn.

In tertian ague the organism completes its development in two days and has a more distinct outline than in quartan ague. In quartan ague the outline is coarser, the pigment rods and granules are thicker, and the evolution occupies three days. Malarial fever has been transmitted from patient to patient by inoculation with the blood. It cannot be inoculated into birds. The malarious poison may enter the body either through inhalation or in liquids swallowed.

Unfortunately we have no time to discuss other diseases produced or aggravated by the action of climate, but must now pass on to consider the second part of our subject—viz., how far climate is beneficial to health. Doubtless race is largely mixed up with this question, and the climate which

[5] Paludism: translated by J. W. Martin, M.D., New Sydenham Society, 1893.

would benefit a European might have the reverse effect on a negro or a Polynesian. The motive of some of the great migrations of nations and races may have been partly due to the search after a better climate, but in many instances it was clearly for the sake of gain, or of fertility of soil, or through compulsion of a stronger race, and the climate of the land in which the wanderers settled was not invariably a desirable one. If we judge countries by the vigour of their races we should unquestionably award the prize to the northern and especially to mountainous districts, where the severe climate and difficulties of subsistence stimulate the inhabitants to great exertions and promote both physical and moral development. Two races have for centuries continued their migrations, the Gipsies and the Jews, and about the latter there are several curious facts. As a rule, they can hardly be said to have a settled home, but have spread to all parts of the globe, and, though an Oriental race, have managed to thrive and multiply and preserve their characteristics in all climes and in spite of opposing circumstances. This can hardly be said of any other people. The Anglo-Saxon race flourishes to a wonderful degree in temperate regions and forms prosperous colonies, but in tropical countries like India it neither thrives nor multiplies, and has to be replenished from time to time from the parent country.

The climates which a modern physician utilises in the treatment of disease and in the promotion of health are various, but the principal groups now recommended may be summed up as (1) the dry, warm, or desert climate; (2) marine climates of all kinds; and (3) mountain climates. The first group is exemplified by the climate of the deserts, which are to be found in Africa, Asia, North America, and Australia. Taking the Egyptian desert as a type, we find the principal qualities are: First, great warmth from the sun's rays and corresponding extremes of temperature from radiation; a maximum of 111° and a minimum at night of 35° are noted, with an enormous daily range. Secondly, dryness of atmosphere, as shown in the small rainfall, which is almost *nil* in Upper Egypt and small at Cairo (1·22 inches), with a difference between the wet and dry bulbs amounting often to 24°. The dryness is also evidenced by the mummies, which remain unchanged in the desert for centuries. Thirdly, great atmospheric purity, shown by the entire absence of carbonic acid in desert air given by Prince Zagiell's experiments, and by its asepticity. This is proved by putrefaction being checked, meat, instead of undergoing decomposition, becomes dry and mummified, and wounds heal rapidly. Fourthly, occasional hot winds, such as the Khamsin, or S.E. wind, which shrivels up vegetation, and, for the time, induces languor both in Europeans and natives. This dry climate in winter exercises a most beneficial influence on many forms of phthisis, on diseases, the offspring of damp, such as rheumatism and bronchitis, on chronic pneumonia and asthma, and, owing to the coolness of the nights, by inducing sleep, it is of great service in many forms of nerve disease.

Our second group is a very large one, and includes all climates characterised by the predominance of the marine element and partaking of it in different degrees, combined with varying amounts of warmth and moisture. It comprises the climate of sea voyages to various parts of the world; that of coasts washed by warm ocean currents, like our British south coast places and Southern California; also climates with temperatures equalised by tropical seas, such as Madeira and the Canaries, or, again, where the stimulating warm influence is the chief feature, as in the Mediterranean health stations. I cannot profess to discuss all these varieties of marine climate here, but must refer you to my recently published work on Aero-therapeutics for fuller information on climates and their results, so I will only briefly touch on the characteristics of the climate of sea voyages. These are equability of day and night temperature, a large amount of humidity, and some degree of asepticity. The typical sea voyage—that from England to Australia round the Cape of Good Hope—when undertaken in October or November gives a range of temperature between 47° and 82° F., an average relative humidity of 82 per cent., and about twenty rainy days in three months. The most beneficial period of the voyage is that spent in temperate climates, and the least beneficial that in the tropics, the effect of which on sailors has been shown by Rattray to be injurious, resulting in considerable loss of weight, this being intensified, if a salt diet and muscular exertion be added. According to him, in the tropics the urine diminished from 42 to 59½ per cent., and the perspiration increased from 8½ to 30 per cent. There was a diminution of 4½ per cent. of the fluid exhaled by the lungs, and a slight increase in that excreted by the bowels. The kidneys appear to be the chief eliminators of surplus water, but the action of the skin is most marked in the tropics and that of the kidneys in temperate climates. Invalids, being well fed and not liable to great physical exertion, do better than sailors in tropical seas, but even among them, as seen in the Red Sea, the results are sometimes disastrous, and the passage from this sea to the Mediterranean and to a much cooler atmosphere has produced albuminuria. The great benefit of sea voyages is the entire rest of mind and body, the promotion of sleep of the soundest kind, the abundance of fresh air without fatigue, and the astonishing increase of appetite and gain of weight, which last is rarely equalled on shore. Sea voyages seem most to benefit chronic diseases—such as chronic pleurisy and empyema and bronchitis, all forms of scrofula and struma, cases of limited excavation in phthisis, hæmorrhagic phthisis, and various neuroses, especially cases of insomnia.

The third group is that of mountain climates, the home of hardy, though necessarily scanty populations, which enjoy a remarkable immunity from many forms of disease. When contrasted with lowlanders the highlanders are generally taller, with broader and deeper thoraces and greater powers of endurance in walking, and this is true of all mountain races, be they natives of the Himalayas, Andean Indians, Swiss or Tyrolean guides, or Scotch Highlanders. The mountain ranges chiefly utilised for climatic purposes are the Alps, the Rocky Mountains, the Andes, the Himalayas, the Nilghiris, and the Zwartebergen, Nieuwveld, and the Drakensberg in Cape Colony. These ranges, differing as they do in altitude, latitude, and meteorology, present certain climatic characteristics, which are for the most part absent in lowland stations—viz., (1) diminished barometric pressure and consequent rarefaction of the atmosphere; (2) diathermancy of the air, owing to the increased facility with which the sun's rays are transmitted through an attenuated medium, causing, according to Dr. Denison, an increase in the difference between the sun and shade temperatures of 1° for every rise of 235 ft.; (3) dryness of air, from a low temperature causing absence of fog and mist; and (4) ascepticity and freedom from organic germs. The physiological effects of mountain climates, as shown on healthy or sick persons ascending from the lowlands, are briefly the following. The skin is tanned by the solar rays, and especially by the ultra-violet rays (Bowles); the circulation is at first quickened, and the heart's impulse increased in power, but at the end of six or eight weeks the pulse-rate becomes less rapid, and it eventually is slower than normal. Respiration is at first quickened, but coinciding with the pulse-rate becomes slower and also falls below the normal, the inspirations being deeper and the expirations (Ruedi) more complete. The quickening of the circulation and respiration is accompanied by thirst, by a reduction in the blood pressure and in the urea excreted by the kidneys, but more carbonic acid (Marcet) and water are eliminated from the lungs, as might be expected from more oxygen being inhaled. Later, when acclimatisation is complete, the normal amount of urea is again excreted, and the blood pressure increases. Coincidently with the slowing of the respiration, there is an extension of the thorax in several directions, causing an increase of the circumference measurements of from one to three inches, with increased mobility of the chest walls. All this points to greater physiological activity of the pulmonary organs, from the necessities of a rarefied atmosphere leading to greater development, and it must be noted that all mountain races have large and deep chests, and are able to march great distances and to climb mountains with comparative ease. The effect of high altitude climates on healthy persons is excellent, and on most forms of phthisis it has been shown by my statistics to far surpass in results any other set of climatic agents. At the same time this is a two-edged weapon, and in many cases of disease, such as those of the heart, liver, and brain, and in emphysema and bronchitis, as well as in the case of the aged and of those with weakly constitutions, it must be avoided as most harmful. Finally, mountains are highly to be recommended as playgrounds for the mentally tired workers and for the young, who can rest their brains and work their muscles, and by inhaling pure, aseptic air may renew health and vigour and return to their duties refreshed as well as recreated.

An Address
ON
PROFESSIONAL REMUNERATION.

Delivered before the South-West London Medical Society on May 10th, 1894,

BY W. G. DICKINSON, L.R.C.P. & D.P.H. LOND.

GENTLEMEN,—At our last council meeting it was arranged that I should open a discussion upon one of those subjects of public and professional interest which were brought before us in this room by Mr. Bryant in February last. The subject of "professional remuneration" which I have chosen is only incidentally alluded to in the following manner by Mr. Bryant, but I think it will be seen to underlie a great deal that he said. The matter is also one of which we all know something, and about which most of us would be glad to know a great deal more in a practical way. Mr. Bryant's remarks are as follows:—"Let us never forget that our patients' interests are those we should always principally consider, and that in all our practical and scientific and professional work the public good is its ultimate object; but at the same time let us bear in mind that, in order to realise this leading purpose, it is all-important for the interests of the public, as well as for the due exercise and dignity of our profession, that every practitioner of medicine should hold a perfectly independent but responsible position, and that in his professional work he should be left perfectly free from lay control, though amenable to lay censure. It is also equally necessary that he should be adequately paid for his professional services by all classes according to their means." Our president, in his opening address at the commencement of our session, stated that the question of the value which we place on our professional services requires more than the passing word which we usually give it, and he mentioned several of the causes which have tended to prevent the due expansion of our incomes—amongst others, cheap dispensaries and prescribing druggists. I do not propose to raise an academic discussion upon the various evils incidental to our professional life and their remedies. I feel that there is one remedy without which all others are useless, and that is unity amongst ourselves; let us attain this and the rest will be comparatively easy. I desire rather to bring matters to a practical issue by examining the various ways in which our remuneration reaches us, with a view to the consideration of what we as a society can do towards improving it, instead of waiting for a millennium which will never come. Mr. Bryant truly reminds us that it is of no use to expect either the General Medical Council or the Royal Colleges to do anything for us; they are much too busy collecting the fees from those who are to come after us.

Now what are the chief methods of professional remuneration at present in vogue? They are:—(1) The ready-money system, as practised mainly by consultants at the top of the tree, cheap dispensaries and open surgeries at the bottom; (2) the rendering of quarterly, half-yearly, or annual accounts, by means of which most general practitioners derive their incomes; and, lastly (3) the contract system in its various forms—viz., (*a*) public appointments, (*b*) private appointments to clubs etc., by the acceptance of which a practitioner becomes the servant of a lay committee, (*c*) medical officership of an association, the members of which pay regularly into a central fund for the remuneration of the medical attendants, and which is managed either by a joint committee of the members and practitioners, or (preferably) by the medical attendants themselves, and (*d*) direct private contract between practitioner and patient, in virtue of which the latter agrees to pay the former a fixed sum per annum. In contrasting these we may remark, as regards the first, that it is in many respects the simplest and the best, provided, of course, that the fee charged is an adequate one; this, however, is a most important proviso. There should be a minimum fee for general practitioners as well as for consultants. I consider that this society should fix a minimum fee to be charged by its members, and it appears to me that under our laws the council is empowered to do so. It is of no avail to abuse cheap practice unless we are prepared to do something definite to stop it, and we can at least make sure that it obtains no footing in our own ranks.

The obvious disadvantages of the ready-money system in a visiting practice are the inconvenience to the patient of having to keep the exact amount ready for the daily visit, and the unpleasantness to the medical man of having perhaps to remind the patient of his fee on each occasion. We none of us object to receiving money, but we all of us dislike having to ask for it; consequently the method of rendering periodical accounts has grown into use, concerning which I will only say that it savours more of the "spirit of trade" referred to by Mr. Bryant than any of the others, and is voted by most of us an unmitigated nuisance. It is true that we usually omit to render to patients the details of our charges, and put "particulars if required," but we have to keep an account of all the items (or iters) in our books in the same way as a tradesman, whose mode of rendering his bill appears to me to be the more honest and straightforward of the two. I think the custom of suppressing the particulars indicates that we are more than half ashamed of the system, which we only adhere to for want of a better.

We now come to the contract system, which has occupied much attention of late years, mainly on account of the abuses to which it is subject. I hope, however, to be able to show that it has its uses as well as its abuses, and that there are conditions under which it may reasonably and profitably be adopted by any of us without loss of professional self-respect. First, as regards public appointments, much might be done (and I am glad to say in some local instances has been done) to raise the general estimation of our professional services by increasing the salaries attached to these, which in too many cases are disgracefully small. Private appointments to clubs, dispensaries, and medical aid associations managed by laymen, appear to be degenerating both as to the independence of the medical officers and as to the value placed upon their services by their lay masters. As Mr Bryant truly says: "It is clearly degrading for any qualified man to do professional work as the paid servant of a committee of illiterate laymen." Ought we to admit any who do so as members of our society?

We now come to the subject of associations for the provision of medical attendance on the poor which are not managed by laymen, but are controlled either mainly or entirely by the medical officers. This, I contend, is the proper system of dealing with the working or artisan classes. If these are not to be thrown entirely on the charity either of the hospitals or the State then I submit that some provident system is absolutely necessary to prevent their falling into the hands of the sixpenny dispensaries. The large majority of artisans and weekly wage-earners cannot afford to pay an adequate fee for daily medical attendance, but they are able to pay a small sum weekly, which, taken in the aggregate, is fairly remunerative to the medical attendant. In a local society of this kind which is well known to some of you the net receipts from 6000 members divisible among the medical officers amount to over £1000 per annum. I think that 1½ per cent. would be a liberal estimate of the average number constantly sick during the whole year (excepting influenza epidemics), and most of this is of a slight character, for which the patients attend at the various surgeries. This gives ninety daily attendances, which I am sure is an outside estimate, but even on this each medical officer receives over £10 per annum for each unit of constant sickness attended by him. This may not be adequate remuneration, but it is a very different thing from the penny a week fallacy which is so often repeated. I will not weary you with further remarks on this subject beyond stating shortly what in my opinion are the conditions upon which alone any provident medical association can be worked without either sacrificing our independence or infringing any principle of medical ethics: (1) the management must rest with the medical staff, the members having only a consultative voice; (2) any medical man who is fairly settled in the district and is not employed by any medical association managed by laymen should be at liberty to join the staff if he desires to do so; (3) the membership should be strictly limited to those who are unable to pay the minimum professional fee of the district; (4) control should be maintained by the staff over all collectors and agents in order to prevent any touting for members; and (5) the fees payable should be such as in the aggregate to be fairly remunerative for the work to be done. I do not know of any society which quite comes up to this ideal, but it is by no means an impossible one, and I believe that a society managed on these lines would bring in better

fees than can be obtained from the same class on any other system, and would do no injury whatever to other practitioners in the neighbourhood.

I now come to my last point, which, like a lady's postscript, is perhaps that to which I wish to draw most attention. This is the question of direct private contract between ourselves as individuals and our patients of the middle and upper classes. The suggestion is, shortly, that our patients should pay by the year instead of by the attendance. Under the title of "health assurance" this proposal has been made before, but met with very little general acceptance, mainly on account of the entirely inadequate sums which were suggested for the annual payments. Before discussing these, let us in the spirit of Mr. Bryant's address consider the matter first from the point of view of the public, our patients. The advantages to them are: (1) that the most serious item of expense in an illness—viz., the medical bill—would be avoided; (2) the principle of mutual assurance would come into play, and those who were fortunate enough to escape much illness in any given year would help to pay for those who might be invalided; and (3) there would be no reason for that delay in sending for the medical man which now too often occurs, and which frequently leads to such serious results; the direct benefit to the public health would thus be very great. Now let us see how we ourselves should be affected, and in order to do so we must consider the question of the annual retaining fee. The amount of this would naturally vary according to the patient's position, the number in family, and the general state of health of the household. The annual fee should bear a relation to the visiting fee charged under the present system, and, like the latter, it should be fairly uniform amongst the medical men practising in the same neighbourhood. I have, for the purpose of ascertaining how this system would work out, taken from my ledger the amounts actually paid to me during the last four years (1889-1893) by twenty patients to whom I charge the same visiting fee—viz., 5*s*. These have not been selected as having had either large or small accounts, but have been taken just as they came. I find that during the four years these twenty patients have paid me almost exactly £600, or an average of £150 per annum. A man paying this visiting fee may easily in any year incur a doctor's bill of £30 or £40 or more; it is, therefore, not unreasonable to suppose that he would be willing to pay an annual retaining fee of £10 per annum, which would cover all ordinary sickness in his family and household. Now if these twenty patients had each paid me £10 per annum during the four years I should have received in the aggregate £800, or an average of £200 per annum, from them, being an increase of 25 per cent. on my actual receipts. I merely take this as an illustration. I do not say that 5*s*. per visit is correlative to £10 per annum; in many cases more would be necessary, in a few less. As I have said, the amount should be fixed in each case by personal arrangement and should bear a relation to the fee otherwise charged. It is clear that there is nothing in such an arrangement which would in any way impair the confidential relations which ought to exist between the medical man and the patient. The retaining fee would not, of course, include confinements, serious operations, night visits, or consultations, and would be terminable by three months' notice on either side. In addition to the actual increase of income which we might anticipate from the adoption of this system, we should derive a further great advantage from the regularity of our receipts. We should not, as at present, be dependent for an improvement in our incomes on the chances of an epidemic or an unhealthy season, but should all be directly interested in keeping down sickness. It is true that at present we express general satisfaction at a fall in the death-rate; but we know all the time that it means a corresponding fall in our own incomes, which makes our satisfaction very much less genuine than it ought to be. Our interest and our duty ought to coincide, whereas under the present system they conflict; fortunately for the public, we never hesitate a moment in our preventive efforts, but still it is hard that we should suffer in direct proportion to our success. We should also under the retaining fee system be saved the trouble and expense of making out periodical accounts, and, since all the payments would be made in advance, we should neither incur bad debts nor have to wait indefinitely for payment. I meant to deal with certain obvious objections to this proposal, but, as this paper is already longer than I intended, I will leave them for you to make and will ask permission to reply to them later.

It would, of course, be absurd to anticipate that this form of contract will ever entirely supersede the present system, which must always remain applicable to many cases. I submit, however, that fifty or a hundred patients making fixed adequate annual payments would form an excellent backbone for any practice, and would be a blessing both to him that gives and him that takes.

In a recent judicial utterance it was held that reputable medical practice is such as is considered to be reputable by the majority of the practitioners of repute in the neighbourhood. If this society does not in this the first year of its existence include the majority of the local practitioners, I feel sure that it will soon do so. Let us, then, take at the outset a high tone in all questions of professional ethics and professional remuneration; let us decide clearly and definitely what is legitimate practice and what is not, and, having decided, let us apply our decisions fearlessly to individual cases.

OBSERVATIONS ON FOUR HUNDRED CASES OF ANCHYLOSTOMIASIS.[1]

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History.—About 3450 years ago, some two centuries before Moses was learning all the wisdom of the Egyptians and qualifying to become a famous sanitarian, a medical papyrus was written in the Hieratic character embracing in an encyclopædic form the knowledge at that time of Egyptian teachers. This oldest of all books on the art of medicine came into the hands of Professor Ebers at Thebes in 1873 and has recently been translated into German. Dr. Joachim[2] fully agrees with Scheuthauer[3] that the anæmia due to the anchylostoma was well known to the physicians of those days under the names of AAA and UHA. The papyrus describes accurately among the symptoms heart weakness, palpitation and stabbing cardiac pain, constipation, œdema of the legs and a weight in the body pressing heavily, with other digestive troubles. But, most wonderful of all, a remedy is prescribed for a patient who has in his abdomen worms which are produced by the AAA disease. Is it possible that this can refer to anchylostoma, which we now believe to be the cause, or to the occurrence of other worms in the bodies of the sick? Entozoa of many kinds are extremely common in all Egyptian patients to-day, and there is no reason for thinking they were not equally common in the days of the Eighteenth Dynasty. Within modern times the earliest mention of this special anæmia was from Brazil in 1648 and from the West Indies and Guiana at the beginning of the eighteenth century. In Europe the disease was first noted among the miners of Anzin in 1802, but it was not until 1843 that Dubini at Milan first discovered the anchylostomum duodenale. Pruner (1847), Griesinger (1851), and Bilharz found the parasite very plentiful in Egypt and successfully proved that it was the cause of the so-called tropical anæmia. In 1833 M. Hamont, a veterinary surgeon, wrote of "cachexie aqueuse" in Egypt, which was very common among the peasants and soldiers, and which, after lasting some years, was nearly always fatal. He describes some of the post-mortem appearances and ridicules the treatment of the French physicians, who among other things ordered twelve leeches to be applied to the abdominal walls of men dying from anæmia. With the exception of a few cases reported by Sonsino about 1880 the disease has hardly been investigated in Egypt of late years. The principal object of this paper is to draw the attention of my Egyptian colleagues to a disease which is sapping the life of the peasant class and to the means of curing it.

Geography.—Since 1878 anchylostomiasis has been found to be spread all over the north of Italy and in Sicily and Sardinia. In 1879 its discovery among the St. Gotthard workmen excited the interest of the scientific world. The disease has been found among miners in Spain, among brickmakers in Germany (Cologne and Bonn), in Belgium, and the Netherlands, and at the Schemnitz mines in Hungary, where it was

[1] Written for the Eleventh International Medical Congress held in Rome, 1894.

[2] Papyros Ebers, aus dem Aegyptischen zum erstenmal vollständig übersetzt von Dr. Joachim. Berlin, 1890.

[3] Virchow's Archiv, Band lxxv., 1881. See also Dr. Finlayson's erudite lecture, Brit. Med. Jour., 1893.

successfully stamped out in 1881 by enforcing cleanliness among the miners. In France it has been found at St. Etienne, Valenciennes, and Commentry. It is worth noting that anchylostomiasis has, as yet, not certainly been found above latitude 52° N., and also that above latitude 47° N. the parasite apparently can only flourish in the sheltering warmth of mines. Besides Egypt, reports have come from Africa, from various places on the West Coast, stretching from the Senegal to the Congo, and from Abyssinia, Zanzibar, and the Comoro islands. In Asia discoveries of this disease have lately been made in Cochin, Lower Bengal, Assam, Burmah, Ceylon, Borneo, Japan, and the Malay Archipelago. On the American continent the disease has been found in some of the southern United States, the Antilles, and in Bolivia and Peru, thus stretching its area of prevalence to 30° S. latitude. In Eygpt itself my hospital cases show that the disease is very widely spread, for I have had peasants from every province in Upper and Lower Egypt, those near Cairo being naturally most often represented. I hoped at first that the patients might come from only a few villages, where the disease could be treated energetically and perhaps stamped out, but my notes tell of more than fifty villages affected in Upper and more than fifty in Lower Egypt. The figures show that 41 per cent. of the patients came from Upper Egypt, 48 per cent. from Lower Egypt, and 11 per cent. from Cairo and its suburbs. It is impossible to know what amount of the population is affected, but the statistics of the Recruiting Commissions for 1892 are worth quoting. Nearly every adult male peasant is liable to conscription, and the conscripts are medically examined in their villages. In Upper Egypt 5988 men were called, and 200, or 3 3 per cent., were rejected for anæmia. In Lower Egypt 661, or 6 2 per cent., were rejected from this cause out of 7420 men. Every province furnished anæmic rejections, but Menoufieh came highest on the list with 13·9 per cent., while I find from hospital statistics that no less than fifteen villages in that province are infected. The recruiting medical officer, who is an Englishman, only rejects those who are obviously too anæmic to serve with the colours, accepting many who are already the hosts of the blood-sucking worm. Thus the medical reports for the Egyptian army show that in 1890 there were 114 admissions to hospitals for anæmia, in 1891 107 admissions, and in 1892 170 admissions. In 1891 22 soldiers were invalided from the service for anæmia, and 65 in 1892, besides which there was one death. The number of admissions for debility are equal to those from anæmia and doubtless include many cases of anchylostomiasis. My patients came from all parts of Egypt, except some of the seaport towns, but I have no doubt the complaint could be found in all of them if properly searched for. For instance, no anæmics came to me from Suez, but Dr. Creswell assures me he has treated three cases there, all earth-workers from villages in the Delta. He also found the worms in the body of a man from Suakin, who died shortly after admission to the Government hospital. From Alexandria I have had only one patient, a blacksmith, but the disease is very well known to Dr. Schiess Bey at the Government Hospital there.

Nomenclature. — European and Egyptian physicians are usually content to call this disease "anæmia," and to treat it without special reference to its causation; but the natives are apt to call it, as in other countries, "mal de cœur," and almost every new patient begins the catalogue of his symptoms by putting his hand on his epigastrium and saying "my heart." The only native name for anæmia is *rihaqàn*, or "the yellows," from an Arabic word meaning saffron.

Age.—Nearly all my patients were in the prime of life, between twenty and forty years of age; but as no Egyptian ever accurately knows his own age that has to be guessed for him. The youngest case[4] seen was a boy aged six years, after which came several boys of about twelve years, there being altogether 48 cases between ten and twenty. Between twenty and thirty there were 170 cases, and 140 more between the years thirty and forty. From forty to fifty the patients diminished to 21, from fifty to sixty there were 15, and above sixty there were only 7, making a total of 402 patients.

Sex.—Out of 402 cases only three belonged to the female sex—two children aged twelve and thirteen, and the other a fellah woman who worked in the fields with her father. I believe many peasant women suffer from anchylostomiasis, but they have not yet learned to apply for hospital relief in the same proportion as the men. I have often searched for the parasite in cases of anæmic women in Cairo without finding it, such anæmia obviously depending upon want of fresh air, bad food, prolonged suckling, &c.

Nationality.—The bulk of my patients were Egyptians, and I have not yet met the disease in a Bedouin, though I once saw it in a negro who worked for a Bedouin master near the Pyramids. I have seen comparatively very few negro cases, and this experience is borne out by the recruiting officers of the Egyptian army, who tell me that "anæmia among the Soudanese is much less than among the fellaheen, but it does exist to a small extent, and especially among those recruited in the Delta." Moreover, only two cases per annum are invalided for anæmia from the negro regiments, which form one-third of the whole Egyptian army. It must be remembered in this connexion that the blacks are cleaner in their habits than the Egyptians, and also that they do not lend themselves so easily to agricultural pursuits as the natives of Egypt.

Occupation.—My hospital patients came from the poorest classes of the community, and I know nothing about anchylostomiasis in higher social scales,[5] but I can conceive no reason why anyone should not be subject to it, provided he swallows some earth containing living embryos. Among 200 men of whom I have taken careful note no fewer than 190 were accustomed to work in more or less damp earth with their hands. The actual figures are as follows: Fellaheen or agricultural labourers working all day in the fields with their hands and with the hoe, which is their one tool, 152; masons' or bricklayers' labourers building walls with mud bricks and mud cement, 18; scavengers of street refuse and of cesspools, accustomed to emptying with their hands the dry contents of the latter, 7; pedlars who dig up and afterwards sell unwashed vegetables, such as onions and radishes, 7; limestone carters, accustomed to act as scavengers on their return journeys to the desert hills, 3; a gardener, a fisherman in mud, and a "shadouf" worker at the Nile bank completed the 190 cases. The remaining 10 men were 1 coffee-stall keeper, 3 readers of the Koran, 1 blacksmith, 1 street shoe-black, and 4 street beggars, 2 of whom announced that they were habitual earth-eaters. All these denied ever having done a day's work in the fields and, excepting the Koran readers, were all townsfolk. These latter, like the beggars, live on food which is given them by the well-to-do. Outside the large towns nearly every representative of the lower classes works in the fields, either for his own profit or for hire. Some 20 policemen incapacitated temporarily by this disease have passed through my hands, all of whom dated their illness from periods of their life when working as fellaheen. Some of these had joined the police direct from their villages, and others had previously passed through the army and had been treated for anæmia several times in the chief hospital of the Egyptian Army.

Cause.—All that is required to produce anchylostomiasis in man or monkey[6] is to introduce into the stomach a microscopical quantity of earth containing embryos of the parasite in its rhabdite form and then to patiently await the result. Muddy water, such as the Egyptians prefer to drink, will act as a vehicle if the embryos have not been too long in it. Unwashed vegetables, fouled by human ordure, and especially unwashed hands coming straight from tilling contaminated soil, are probably responsible for much of the infection. The calls of nature are obeyed by both sexes in close proximity to the huts inside or outside which they eat, and doubtless embryos are often transferred from the feet to the mouth of those who sit cross-legged at their meals. European textbooks still refer to water as the medium through which the parasite reaches man; but Surgeon-Major Giles has examined fifty-six specimens of water from wells and ponds of villages affected by anchylostomiasis: sixteen of these he found by chemical and microscopical examination to be "bad" or "very bad," yet on only one occasion did he find a rhabdite of doubtful origin in water. However, it is quite

[4] Surgeon-Major Giles publishes the case of a girl aged four, verified at the necropsy and complicated by malaria and tubercle of one lung.

[5] THE LANCET of Feb. 1st, 1890, published an instructive tale of a man, apparently well-to-do, who fell ill of anæmia in Central India in 1885. He was sent to Australia for his health, saw several physicians in London and elsewhere, and improved under iron tonics. In 1889, after many ineffectual attempts to resume work he was so prostrated by diarrhœa and weakness that he entered a hospital at Heidelberg, where 127 ankylostomata were discovered and the patient was cured.

[6] Report on Kála-azár and Beri-beri, by Surgeon-Major Giles, I.M.S., Shillong, 1890, p. 82. Five monkeys were fed with infected earth; two were killed and many anchylostoma were found in their duodenums, and one died apparently from the parasite, but the duodenum was not examined by an expert. The remaining two monkeys had no ova in their dejections four months after they had swallowed the infected earth.

possible that Egyptians may occasionally infect themselves by their habit of rinsing their mouths with stirred up muddy water. Leichtenstern[7] fed men with rhabdites and found eggs in their fæces four or five weeks later. Fortunately, continued exposure to the sun's heat during dry weather kills the embryos, or it would be possible for the parasite to do much more harm than is now done in Egypt. The fellaheen, who seem unconsciously to devote their lives to encouraging their entozoa, are often eaters of earth, like the anæmic negroes of the West Indies and Guiana;[8] 26 per cent. of my cases confessed to eating it, though most of them allowed that it was a bad habit and induced anæmia. They call the Nile mud "teen ibliz" (πηλός, mud), and apparently have some old superstition that the soil, so fertile to vegetation, cannot but be beneficial to the human economy. Chlorotic and pregnant women often eat earth, as also the women who clean the corn after threshing. There is, too, a curious custom connected with earth eating which I have never seen mentioned. On the day of maximum high Nile and the general rejoicings thereupon the town crier, who is on the look-out for backsheesh, presents "teen ibliz" with a lemon to the inhabitants for luck, and many of them eat of it.

Definition.—I venture to propose the following as the definition of anchylostomiasis: an insidious wasting disease, characterised by progressive anæmia without apparent cause, and by digestive and nervous deterioration, occurring chiefly in earth and brick labourers of warm climates, caused by the presence in the duodenum and jejunum of a blood-sucking rhabditic nematode worm, occasionally proving fatal in prolonged cases, but capable of cure upon removal of all the parasites, and capable of prevention by scrupulous cleanliness.

Diagnosis.—The anæmia is so marked that there is seldom any difficulty in recognising it, and therefore this symptom is well known to all physicians who have patients among the fellaheen; but the disease itself is rarely recognised in Egypt, for a generation has arisen which knows not Griesinger, and under ordinary circumstances the worms are not to be found in the evacuations. Even after thymol and a purge have been given to a patient fasting care and patience are required to find the worms. This can easily be done after submitting the fæces to several washings with clean water and examining the final deposit. The worms, which are naturally white, are generally discoloured by the fæces, and must be carefully distinguished from any accompanying oxyurides. It will be found that thymol has removed most of the fæcal odour. The microscope furnishes the readiest means of discovering the parasite, for in most cases eggs can be found in a tiny portion of the suspected fæces, which, to make the examination more agreeable, may be washed in a test-tube with a weak solution of carbolic acid. In any case where anchylostomiasis is suspected, in spite of the absence of ova under the microscope, a cultivation experiment in damp earth exposed to the air would establish absolutely the presence or absence of the parasite.

Symptoms.—These may be grouped into three classes—those affecting the digestive, circulatory, and nervous systems. They usually affect the patient in the above order, but most cases are so far advanced before they come under treatment that all three systems are affected. The worms are voided so seldom with the fæces that patients never know that they are suffering from entozoa, unless they happen also to be the hosts of ascaris, oxyuris, or tænia. Gnawing, throbbing pain in the epigastrium is the first symptom complained of, chiefly because it is constant, whereas severe colic and borborygmi of the intestines are only present from time to time. The appetite is invariably affected, sometimes ravenous at the beginning, but later it is always capricious and diminished. The English nurses tell me that anchylostoma patients are always begging for medical comforts or cigarettes, even in the middle of the night, when other patients are asleep. Among 40 men carefully cross-examined 16 said their appetite was once greatly exaggerated, 16 pleaded diminution from the beginning of their illness, and 8 believed their appetite was normal until the anæmia became very marked. I have already referred to earth hunger, sometimes the cause and sometimes the effect of the illness. Vomiting and nausea were rarely complained of. Constipation, when not under thymol and purgative treatment, was a very constant symptom in hospital; 60 per cent. had suffered for a long time from obstinate constipation, 28 per cent. had had diarrhœa before admission, and 12 per cent. had no recollection of being troubled with either. None of the figures depending upon the memory of the patients must be taken as absolute truth, as the intelligence of many is of a very low order. Diarrhœa and even dysentery are not uncommon in very advanced cases, especially those complicated by bilharzia ulceration in the rectum, and unless the patient is robust enough to support thymol such cases are apt to end fatally. However, I have had the satisfaction of curing some cases of anchylostomiasis which had been unsuccessfully treated elsewhere for several months as chronic dysentery. Flatulence of the lower abdomen has been mentioned by Dr. Lutz as a common symptom. I found it present to a slight extent in one-third of the cases. The urine is not unlike that of ordinary anæmia, neutral or alkaline in equal proportion, and rarely acid, pale coloured, with specific gravity ranging from 1010 to 1015. A trace of albumen was present in all the most advanced cases without casts under the microscope. Pain in the head was generally referred to the temples, while in the knees there were invariably present great weakness and some pain, and occasionally there was, in addition, pain in the shoulders. Giddiness is another very general symptom, and it is this, as much as anything else, which compels them to give up work. Palpitation over the heart, in the epigastrium, and in the temporal arteries is sure to be present in bad cases, while the anæmic murmurs of the heart and neck are solely dependent upon the degree of anæmia and can be banished by a prolonged course of iron. Hypertrophy of the heart was noted and verified after death in some of the advanced cases. Dyspnœa and noises in the ears were present, as might be expected with marked anæmia. Œdema of the legs, like albuminuria, is only to be seen in the worst cases, and some of these had general œdema when admitted in a dying condition. The tongue was extremely pale, the mucous membranes were excessively white, the face had an unhealthy yellow pallor, very different to the ruddy brown of the peasant in health, and the bloodless nails testified to the blood containing not more than half the normal number of red corpuscles. The skin is always cold and the temperature before thymol is given generally subnormal in uncomplicated cases. After excluding any fever produced by concurrent diseases and any defervescence caused by thymol I find that one-third of my patients had a normal temperature during their stay in hospital, but that two-thirds had a distinctly subnormal range, varying from an average of 36·3° C. A.M. to 36·9° C. P.M. Many of these patients when convalescent had an increase of half a degree night and morning. Surgeon-Major Giles suspected that many of his patients in Assam had suffered from fever at the onset of their malady, and he was confirmed in this impression by observing pyrexia in the monkeys fed on anchylostoma embryos. After eliminating all those who had fever while in hospital, or a history of intermittent fever or any enlargement of the spleen, I found that 68 per cent. of the remainder stated that their troubles had begun with a few days' fever. The eyes of patients show a pearly white conjunctiva, singularly in contrast with the yellow colour of the face. Dr. Scott kindly examined several men for me with the ophthalmoscope, and found in half of them a normal fundus and in the other half a fundus very pallid. The refraction tests showed astigmatism in many cases. I have never found any retinal hæmorrhages, epistaxis, or general tendency to hæmorrhages, but in two cases there was melæna while under treatment. The face of the patient is characteristic, though it is difficult to describe his discontented, harassed expression, which sometimes changes to a ready smile after a month's stay in hospital. The worst cases are those which are always asleep and cannot be interested in anything when they are awake. On the whole, sleepiness is decidedly a symptom. Dense stupidity, associated sometimes with reiterated demands for a favour already granted, show that the bloodless brain is affected in all advanced cases, and at least three times I have found a condition of weak-mindedness which would have warranted the patients being sent to the lunatic asylum. Debility and wasting are of course important symptoms, but it must be remembered that when a man is so weakened by the disease that he cannot work he ceases to earn money, and his food-supply becomes limited. In fact, it is very often poverty which brings the patient to the hospital. The average weight of 100 grown men upon admission to the hospital was 117·5 lb. The average height was 5 ft. 5¼ in., which by Danson's tables should scale at least 135 lb. Of

[7] Deutsche Med. Wochenschr., Oct. 18th, 1888.
[8] Hirsch: Geographical Pathology, English edition, vol. ii., p. 313.

the patients who stayed in hospital more than two weeks 70 per cent. gained weight, 22 per cent. lost weight, and 8 per cent. remained stationary. The average loss of weight was 3·2 lb., and was, of course, caused by the necessary starvation, thymol, and purging. The average gain of weight was 5 4 lb., some gaining as much as 15 lb., 17 lb., 18 lb., and 20 lb. Absence of patellar reflex is not surprising in cases of general debility and muscular weakness. In 35 per cent. of cases examined the reflex seemed unaltered, in 48 per cent. it was completely absent, in 5 per cent. it was decidedly diminished, and in 12 per cent., all of which were early cases, it seemed to me to be a little exaggerated. Impotence seems to be a decided symptom of anchylostomiasis. Out of 38 men specially examined on this point 24 had completely and 5 had almost entirely lost their virile power, while of the remaining 9, 5, aged from nineteen to twenty-five, had their puberty considerably delayed.

Examination of the blood.—I have notes of 173 cases in which the blood-corpuscles were counted on admission to hospital. In only three patients were the red corpuscles found to exceed 4,000,000, and even then the excess was extremely slight; 23 per cent. numbered between 3,000,000 and 4,000,000 to the cubic millimetre, 46·8 per cent. varied from 2,000,000 to 3,000,000, and 28·3 per cent. had less than 2,000,000 red blood corpuscles. The minimum recorded was 930,000 in a patient who afterwards did well. The average gain of red corpuscles during stay in hospital of these cases was 1,290,000, and could have been much more if it had been possible to keep the patients for a longer time. The least gain recorded in any one patient was 310,000, while ten patients gained over 2,000,000 during their stay. The youths seemed to have the most recuperative power in this direction, and I recorded an increase of 2,542,000 in a boy aged eighteen years. Another boy, aged sixteen, during one month gained seven pounds in weight and 2,208,000 red corpuscles, while the Alexandria blacksmith in six weeks gained eleven pounds weight, and raised the number of his red corpuscles from 1,054,000 to 3,875,000. It is right to mention that the corpuscles were counted by two house physicians under my guidance, but that, though the rule was to take the average of ten squares, it was not always possible to take the average of more than six squares in counting by the method of Thoma-Zeiss. The average number of white corpuscles upon admission was 10,360 and the average increase in hospital was 5370. Gowers' hæmoglobinometer showed an average of 26 per cent. upon admission, the numbers varying from 10 to 54 per cent. of hæmoglobin. The increase of hæmoglobin in hospital ranged from 22 to 32 per cent. and probably continued when the men became out-patients. As a further blood test, Dr. Kaufmann examined twenty typical cases for me to determine the volume of the red corpuscles.[9] Healthy men were found to have from 45 to 50 per cent. by volume, but the anæmic patients had only from 15 to 43 per cent., the average of all being 25 per cent. This average corresponds very fairly with the average of red corpuscles by enumeration. One patient increased in hæmoglobin from 23 to 45 per cent. and in volume from 16 to 43 per cent. in a fortnight. Another patient's hæmoglobin was raised from 35 to 67 per cent. in two weeks and his volume of red corpuscles from 31 to 45 per cent.

Average stay in hospital.—The last 100 of my patients spent in the hospital wards periods varying from fourteen to seventy-six days, the average of the whole being thirty days. Upon leaving the hospital they were cured of their parasites, but not entirely of their anæmia. Some were discharged in order to make room for other inmates, but most of them felt so much better in health that they clamoured to be allowed to return to their work.

Duration of illness.—Nearly every patient said he had been ill two or three years before admission. I find among my notes 29 cases, uncomplicated by other diseases, where the patients said they had suffered for more than three years; of these, 13 had been ill for four years, 6 for five years, 3 for six years, 2 for eight years, 2 for nine years, 2 for eleven years, and one vowed that it was fifteen years since the commencement of his symptoms. It may safely be said that during these long intervals of time very few patients had any rational treatment.

Complications and concurrent diseases.—It is very rare to perform a necropsy upon an Egyptian of the peasant class without finding various entozoa, and the anchylostoma patients are no exception to this rule. The distoma hæmatobium of Bilharz is so common among men and boys that its presence is not always noted, and my cases probably included more than the 80 cases of which I have notes. At one necropsy there were 40 worms in the blood of the veins of the liver. In experimenting on cases of bilharzia with thymol (so far unsuccessfully) I have often found anchylostoma though the patients had no symptoms or appearance of anæmia. Oxyuris vermicularis was present in half the patients, and was usually completely expelled by the first dose of thymol. Though this worm is so common in Egypt I hardly know whether it produces any bad effects. Ascaris lumbricoides was noted in 15 cases after the exhibition of thymol, and perhaps was present more often. Thymol expels it quite as well as santonine. Tænia mediocanellata was present four times and is not well acted on by thymol. Trichocephalus dispar was only found in two of my cases (Surgeon-Major Giles found it in nearly all his Assamese patients). Favus was present in many of the poorer Egyptians. Pellagra existed in 28 cases and being in an early form was cured by the tonic treatment. Intermittent fever occurred in 9 of the cases. I have found anchylostoma in cases of dysentery and of fistula in ano, and have found it in patients who came to the hospital complaining of hæmorrhoids and prolapse of rectum. Albuminuria was present in 30 advanced cases, besides three others in which there was kidney disease. Nearly all the fatal cases passed while in hospital urine of uniform specific gravity (1010). Three cases came under my care after they had had lithotrity successfully performed. Chronic bronchitis may be regarded as one of the complications, having been present fifteen times. Ten patients with tubercle of lungs also harboured anchylostoma. I have also found them in isolated cases of cirrhosis of the liver, diabetes, rheumatism, heart disease, leukæmia, disseminated sclerosis, hasheesh delusions, &c. Beri-beri has a geographical range very similar to that of anchylostomiasis, in spite of the endemic state of the latter in Italy, and this probably accounts for their having been so often confounded. Beri-beri, which would seem to be a specific peripheral neuritis, has not yet been found in Egypt, and the cases on which this paper is written do not at all resemble the accounts published of beri-beri where it is uncomplicated by the presence of anchylostoma. Moreover, I have had the advantage of showing several groups of my patients to physicians well acquainted with beri-beri in the Straits Settlements and India, and all of them have failed to find the characteristic signs of that disease.

Mortality.—Of patients nominally under my care 89·5 per cent. were cured or greatly relieved, 2·5 per cent. were unrelieved, and 8 per cent. died. The total number of necropsies of which I have notes is 26. Of these, 10 were admitted to the hospital dying, and they died within two or more hours. These were generally found by the police lying in the streets, starved with cold and hunger, and in the last degree of exhaustion. Eight died after treatment by thymol, and 8 others were treated in the hospital for other diseases, such as gastritis, enteritis, kidney disease, dysentery, and general tuberculosis. One man came from the surgical wards after an excision of the lower jaw for cystic enchondroma. Besides thirteen bilharzia worms in his portal vein his intestines contained three ascarides, three oxyurides, and 118 anchylostoma, fifty of which were still attached to the jejunum. Of the 8 thymol cases 2 died, I think, in consequence of the thymol eleven hours and forty-eight hours respectively after taking the dose; both these men had previously had thymol without bad effect, but they were both in a miserable state of exhaustion and debility. I do not think that thymol accelerated the death of any of the remaining 6 cases. The number of days which elapsed between the last exhibition of thymol and death was five, six, nine, thirteen, fifteen, and nineteen respectively. Three of these cases were over sixty-five years of age. Most of the fatal cases had loud anæmic murmurs, markedly subnormal temperature, slight general œdema, albuminuria, and great mental weakness. The actual cause of death was exhaustion from utter absence of rallying power. It is difficult to believe that the pathological effects are induced only by hæmorrhage from the daily suction of scores or even hundreds of worms. In addition to the loss of blood there are general thickening and degeneration of the duodenum and jejunum, and consequent interference with normal digestion, then non-assimilation, and eventually a process of slow starvation. It is also worthy of consideration that there may be in prolonged cases some

[9] Schulmeister's centrifugal top machine was used with Professor Gaertner's hæmatocrite. This method has the great advantage of being very rapid compared to the enumeration of corpuscles by the microscope.

self-poisoning from the great number of bites in the walls of intestines containing ill-digested and perhaps decomposing food.

Post-mortem appearances.—Some of the earlier necropsies were made by myself, the later ones by Dr. Kaufmann. The muscles were in one case described as of normal colour, but in all others they were very pale. There was usually a great absence of subcutaneous fat. The lungs were very pale and œdematous in all cases, and all the organs were extremely bloodless. In one case there was noted œdema of the glottis. The heart was found to be hypertrophied ten times, and was very small twice, generally pale-brown in colour, and on three occasion there were marked changes in the mitral valve. The most common abnormality in the liver was a brownish-yellow fatty appearance. In one case there were several abscesses and the liver weighed 3700 grammes, and in one patient there was well-marked jaundice. The spleen was enlarged in one-third of the necropsies. The kidneys invariably showed some change, though this was often much more marked in one kidney than in the other. They were very pale in twenty-four patients, three of whom had several small cysts. Of the remaining two patients one had granular kidneys and the other had cysts, but the kidneys were of normal colour. The brain was always exceptionally white, and in one case there was recent apoplexy. The small intestines showed, of course, the most important changes. As a rule, there were many hæmorrhages and bites in the jejunum and ileum, but in one of the cases, where the bites were carefully counted, there were only six in the jejunum and ileum, and no worms were found. In another case, however, there were 575 bites in the small intestine, besides 250 anchylostoma. In yet another there were 100 bites, the farthest of which was four metres and a half from the pylorus. In only two cases was there much liquid blood in the intestine. I have not observed the constant changes in the mucous membrane of the stomach described by Surgeon-Major Giles. The great variability in the number of anchylostoma found at the necropsies is interesting. In seven cases, all treated by thymol during life, no worms could be found. In an eighth case, also treated by thymol, but insufficiently, there were ten worms. The remaining eighteen cases had not had the advantage of thymol. Six of them, nevertheless, were found to have less than ten worms, and in 2 of these corpses only one worm was found in each jejunum. Three other cases numbered 20, 40, and 50 worms; but the remaining 9 had numbers varying from 170 to 381, terminating with the maximum record of 863.[10] On that occasion the necropsy was made seven hours after death, and the worms were scattered from a point one inch beyond the pylorus for the length of three metres; 217 of the 853 were still attached to the intestine and were surrounded by much bloody mucus, while 646 were lying free in the intestine. Sixteen of the latter were still alive, and one couple were in copulation.[11]

Next, the position of the worms deserve notice. It was quite the exception to find any parasites in the duodenum. Can it be that when the duodenum becomes thickened and riddled, as it were, with the ravages of former generations the anchylostomum fastens by preference on to the jejunum? Some such cause as this suggestion of gradually shifting the pasture is required to explain the interesting fact that it is not the most advanced cases of anæmia which always yield the largest quantity of worms. In such cases the parasite must not only have to burrow extra deep, but the blood when reached is of course deficient in quantity; or is it that the half-starved worms are dislodged by repeated attacks of diarrhœa? The furthest feeding ground that I have ever seen was 6·30 metres from the pylorus, where there was a worm firmly attached;[12] but as a rule the attached worms are all within two metres of the pylorus and have their heads and sometimes half their bodies buried in the mucous membrane. It is often impossible to dislodge them by a strong stream of water, and they must then be pulled out by forceps. I examined about fifty cases to see the proportion of male to female worms and found it to be 56 to 44 per cent. This is not in accordance with some of the authorities,[13] who say that males are always more rare than females, and that males are less influenced than females by the action of expellent drugs.

Treatment.—The native remedies for the disease are barbarously crude. As no one knows the real cause of the disease no attempts are made to expel the parasite. Most patients bear on their heads, legs, or epigastria the scars left by the barber's application of red-hot sickles or nails to relieve pain. One man came to the hospital after the rough treatment of the actual cautery with a large slough on his back, in the midst of which a small artery was spurting. Some patients have in addition setons placed in their ears and at the pit of the stomach, and others have been bled from the arm or from under the tongue. A few men have been advised to eat for their obvious anæmia iron filings mixed with sugar, but in this remedy they have very little faith. The rational treatment is, of course, twofold—viz., to expel the worms and to treat the anæmia. Before I ever heard of thymol as the specific vermifuge for this disease I went through a weary apprenticeship of failing to get rid of the parasite with other drugs.[14] When I first learnt the powers of thymol on the anchylostomum, I experimented on a dozen patients with santonine, male fern, &c., before giving that drug. In every case the bulk of the worms were not removed until after the administration of thymol. Two patients voided 324 and 120 anchylostoma respectively after thymol, though not a single worm had been expelled by means of other drugs. But for the last three years I have looked upon it as a waste of time to administer any other anthelmintic than thymol for this parasite. Perhaps the most successful dose I ever prescribed was on May 12th, 1892, when a rickety, syphilitic peasant, after 4 grammes of thymol, was rid of 480 anchylostoma, 750 oxyurides, and 15 ascarides. On May 19th the thymol was repeated, and twenty-two anchylostoma were passed. On May 26th eighteen more appeared after a similar dose. On June 2nd there were three more, and on June 8th there was a last detachment of five. Two more doses of thymol were given without result, and eggs ceased to be found under the microscope. In order to see whether thymol had cleared out all the round worms a dose of santonin was given on June 5th without any effect. In 229 patients I have induced students to count the numbers of anchylostoma voided after the first dose of thymol. There were 14,190 of this species alone, giving an average of 62 per man. The largest numbers met with were 350, 372, 480, 483, and 600. On seven occasions no worms at all were found, in spite of eggs, under the microscope, but in three or four of these patients a second dose of thymol produced a very few specimens. Now one word about the number of doses of thymol required to completely eradicate the parasite. It is true that the bulk of them are brought away by the first dose, but there are invariably many stragglers behind, and it seems dangerous not to attack them. In 184 patients I was able to prove the absence of worms by giving at least two, and sometimes more, doses of thymol after the last appearance of the parasite in the stools. The average number of doses required proves to be 2·6. Forty-two men were cured after only one dose, 58 after two, 42 after three, 25 after four, 9 after five, and 4 after six doses of thymol. In two cases, however, the parasite could only be entirely dislodged by seven attacks, and two other cases required eight doses of thymol. In the event of patients being treated outside a hospital, it will, therefore, be advisable to give the thymol treatment on at least three occasions. The dose of thymol is of considerable importance. I quite agree with Giles and other writers that small doses are valueless. I used at first to give, as recommended, six grammes at intervals of two grammes every two hours, but to prevent unnecessary collapse I have for the last year only given four grammes as an adult dose—viz., two grammes at 8 A.M., and the remainder at 10 A.M. I am of opinion that four grammes are as efficacious as six, and are certainly less dangerous. Warned by the death of at least one of my patients immediately after digesting the thymol, I have always administered to feeble men twenty-five grammes of brandy with each two grammes of thymol, with

[10] Ernst of Cologne reports a case (Deutsche Med. Wochenschr., April 12th, 1888) of a brickmaker aged thirty-five who was admitted to hospital dying of anæmia without œdema. His red corpuscles numbered 928,571. At the necropsy as many as 2763 anchylostoma were found, being 1269 males and 1494 females. Only 81 worms were still attached to the intestine. The greatest quantity of worms, both attached and free, were found between two and three metres from the pylorus.

[11] Lutz, among 14,000 worms, found only one couple in copulation (Schmidt's Jahrbucher, Band ccxvIII., Heft 1, p. 38).

[12] Dubini has only once seen the worm in the ileum. The nearest feeding ground seen by me was 24 centimetres (9½ inches) from the pylorus. In that case there were 100 worms attached and 281 detached, besides oxyurides.

[13] Traité de Zoologie Médicale, vol. i., p. 765. Par R. Blanchard. Paris, 1889.

[14] So lately as Nov. 25th, 1891, the Semaine Médicale tells of cases of anchylostomiasis at Lyons treated with 15-gramme doses of extractum filicis maris liq., and death with tetanic symptoms. Professor Lépine thereupon recommended that the maximum dose should not exceed 8 grammes.

the happiest results. For a day before and a day after the thymol the patient is kept on a diet of milk and soup. I began by giving a purge before and after the thymol, but for a long time now I have omitted the preliminary purge as being unnecessary and as contributing not a little to the patient's exhaustion. At twelve, noon, two hours after the second half of the thymol, sulphate of magnesia or castor oil, the latter to be preferred, is given. The stools were usually examined at 4 P.M., and again at 8 A.M. the next morning—i.e., eight hours and twenty-four hours after the first swallowing of the thymol wafers. I have taken notes of 50 cases to see whether it be necessary to examine the motions of both days. I find that 1301 worms were found up to 4 P.M., and that 444 were passed between 4 P.M. and the following morning. Moreover, upon ten occasions there were no worms in the afternoon, though some appeared later in the stools, whereas twenty times there were worms at the afternoon examination, and none the following morning. Therefore, if impossible to examine several motions, it would appear more important to examine those specially which are passed from six to eight hours after the early thymol. Thymol if given without brandy is probably very insoluble in the stomach and duodenum, and Giles says that he seldom found any worms until twelve hours after the earliest thymol. Occasionally patients vomited after swallowing the drug, but as a rule they retained it perfectly and evidently had some faith in its properties, for they used to ask for an extra dose of it while convalescing. Large doses of thymol have poisonous effects upon the system, not unlike those produced by carbolic acid. The temperature is lowered one or even two degrees Centigrade, and both pulse and respiration are slowed. The patient remains for a few hours collapsed, giddy, and faint, and has to be kept lying down; but at sunset he is quite well again and asking for food. The following case is a typical one in a very anæmic man:—Jan. 14th, 1892: 6 A.M., temperature 37·5°, pulse 80, respiration 19; the patient was in his usual state, and was given two grammes of thymol; 7 A.M., temperature 36°, pulse 80, respiration 19; the patient said he had slight nausea, giddiness, and colicky pain at the epigastrium; 8 A.M., two grammes more of thymol were given; 9 A.M., temperature 35·5°, pulse 70, respiration 17; great giddiness; the patient could not stand or walk; he was very sleepy and talked like a drunken or very sleepy man; 12 A.M., symptoms much the same; the patient perspired while asleep: 2 P.M., temperature 37·5°, pulse 75, respiration 18; the patient was apparently quite well again and said he did not mind the thymol, except that it made him lose consciousness. The following case is worth quoting very briefly because of the low temperature and of the disease not having been previously recognised. Dec. 29th, 1891: A fellah was admitted from the Barrage, near Cairo, complaining of giddiness, pain in his head and epigastrium, and weakness of knees. He was extremely anæmic, and his face very yellow; but his nails, though very white, showed a faint pink tinge. He seemed only half-witted; but I learnt that he had been ill for three years and had been treated by rustic quacks for hæmorrhoids, having also been treated four times in a Government hospital for dysentery. His motions, which were five in the twenty-four hours, contained many anchylostoma eggs. He had a loud anæmic murmur; the liver and spleen were slightly enlarged; the urine had a specific gravity of 1013, but contained no albumen. Dec. 30th: 7 A.M., one hour after thymol, temperature 36·6°, pulse 62, respiration, 20; 9 A.M., after a second lot of thymol, temperature 35·4°, pulse 58, respiration 16; pupils contracted; great weakness, sleepiness, and giddiness; 11 A.M., having now taken six grammes of thymol, temperature 35° (95° F.), pulse 46, respiration 16; the patient was collapsed, and brandy had to be freely administered; 2 P.M., quite well again; temperature 36·6°. This man was discharged on May 31st, 1892, with good colour and looking happy, though there was still slight mental weakness. His diarrhœa had completely ceased, his weight had improved from 84 lb. to 101 lb., and his temperature was no longer subnormal. The contra-indications for thymol are excessive debility, very low temperature, age above sixty, and advanced disease of heart or any other organ. Boys take it very well in half quantities. If patients return to their former lives after leaving the hospital, as it is certain they will, they will again become hosts of this dangerous worm, but I can recall only one case of a patient treated by several doses of thymol who returned to the hospital still sheltering anchylostoma. This was a boy who also had bilharzia, and on turning up the old notes of his case I find that he was discharged as "better" from hospital directly no worms had been discovered in his stools after thymol. A more careful search for worms or for eggs might have shown that he was not cured. But, on the other hand, several old anchylostomiasis patients have returned to the medical wards for other diseases, and no eggs have been found in their dejecta. As a rule, I have not considered it fair to submit patients to the depressing influence of thymol more often than once a week, but in the case of fairly robust men who were anxious to make no long stay in hospital I have often given it every four days. Isolated cases could, of course, be treated with much more care than I have shown, but for the last year or two I have found a third of my male wards full of anchylostomiasis, and I have been obliged to consider the greatest good of the greatest number. To prevent any possible spread of the disease the evacuations of patients ought to be treated with some disinfectant such as perchloride of mercury, 1 in 500. The general treatment of the anæmic is, of course, of great importance from the very first. The hospital mixed diet, with its meat and better bread, is superior to the food obtained by patients before admission, and contributed greatly to their improvement in health. In spite of the disturbances of the digestive tract, men, unless dying, were always ready to eat ordinary and extra meals. Iron I have tried in various forms, and though some few patients complained of headache at first it was greedily absorbed by the economy. My only desire was to find that preparation of iron which could be taken in large doses and would quickly banish the anæmia. The peroxide can be borne in large quantities, but the microscope proved that the blood was most benefited by the daily supply of one gramme and a half of the sulphate of iron in water in three equal doses. The patients during their stay in hospital were always taking iron, except on the days devoted to thymol. During the winter some of the feeblest patients were given every day a little brandy with advantage. The treatment of other symptoms was too simple to need mention. Transfusion of blood, or even of a saline solution, I have often thought might be beneficial to cases admitted to hospital in a dying state, but as yet I have not tried this treatment.

Prevention of the disease.—Cleanliness alone is required, but it will be years before education will teach the fellah to wash his hands before eating. In the meantime can the Government do anything to prevent the ingestion of embryos by the Egyptian labourer? A very simple experiment will prove that the embryo, whose staple food is fæces, will die if deprived of fresh air. If, therefore, the inhabitants of infected villages were compelled to dig trench latrines outside the villages, to use these latrines alone, and to cover them daily with a little earth the disease might be stamped out; but anyone acquainted with Egypt knows that even so simple a reform as this would require an enormous amount of inspection. Another point would be to ensure the latrines being exposed to the sun's heat, for, though the embryos are killed by prolonged exposure to the sun, they have been known to live in shaded earth contaminated by fæces for more than six months. Giles recommends ploughing the injected surroundings of villages, so as to bury the embryos.[15] I do not believe in anchylostomiasis being communicated in a general way by water, but all efforts to purify the water-supply of villages would be a help to remove this disease and its favourite companion, bilharzia. Lastly, the Government, especially with its recruits for the army, the police, and for public works labour, might have all peasants examined more carefully than is at present done for the early symptoms of this disease. Early cases of anæmia can be recognised by a physician before the patient is aware that he has a definite illness, and one dose of thymol can prevent the chronic pernicious anæmia which drags the man to the hospital one, two, or three years after he begins to feel ill. I am convinced that nearly all the anæmia of adult males among the lower orders in Egypt is due to anchylostomiasis, if those cases are excepted which are obviously caused by some other kind of hæmorrhage or by wasting disease.

Life-history of the anchylostomum.—A very brief account will suffice here, because the adult worm is thoroughly described in Blanchard's book already referred to, and Giles has traced out very carefully the rhabdite changes. I first cultivated embryos in a garden, but afterwards found it more convenient to keep infected fæces and damp earth in glass

[15] Pp. 131-135. Also Tea-garden Sanitation, by the same author.

dishes in a room, the temperature of which during June and July varied from 21° C. to 24° C. In fresh fæces the ova are usually two- to four-segmented, but may contain eight segments, and on the second day I found several already containing living embryos. On the third day several embryos had escaped from their eggs. In the young stage they resemble in structure and habits the free-living rhabdites and, like them, go on feeding and growing for a considerable time. They then change their skin either once or several times and enter upon a stage when they cease to take in nourishment and to increase in size, and then they need to become parasitic; but so long as nourishment in the way of fæces is supplied to them and they are protected from drought or too great heat they will continue to live for months, in the hope of being swallowed by a man, in whose duodenum they can alone develope into adult worms. On the fourth day the embryo is almost, and on the fifth day quite, free in its sheath. On the sixth day and later I found empty eggs from which the embryo had just escaped, but it was not until the tenth day that I caught one in the very act of emerging. On the sixth and following days the embryos were of very varying sizes, all very active, and wriggling towards the edges of the cover glass to escape. On the seventh day I could first distinguish that some of the embryos were females. On the eighth day there were on one slide 30 embryos, all alive and of different sizes, the large-sized being now obviously male and female. On the tenth day the eggs were suddenly increased in number, from 1 or 2 to 17 upon one slide, apparently rhabditic, but having the same appearance as the original ova. Upon the same slide were 27 embryos of various sizes and one ruptured empty sheath. On the eleventh day one slide showed 15 eggs and 25 embryos, all alive but moving very slowly. On the twelfth day there were on one slide 27 eggs, 14 dead embryos, and only 2 alive, and those moving very feebly. I then divided the cultivation into two halves—one half to be moistened with filtered water daily, and a new half to be mixed with the fæces of a healthy man, after negativing anchylostoma by the microscope. On the fifteenth day a slide from the old half showed 5 eggs and 3 dying embryos, while a slide from the new half showed 30 eggs, 6 embryos dead, and none alive On the sixteenth day the old half showed 6 eggs and 4 dead embryos, while the new half had 14 eggs and 7 very lively but very young embryos. This new brood had thus been produced by healthy fæces in four days. It is not necessary to give all the daily examinations. On the thirty-first day the slide from the old half still showed 12 eggs, one of which was empty, 5 dead embryos, and 2 living ones. The new half had 34 eggs and 18 embryos, all very lively but not growing. On the fortieth day there were no eggs and only one embryo, dead, in the old half, while in the new half there were also no eggs, but 21 very lively embryos and 3 dead ones, as also one complete sheath. On the forty-fourth day, when I had to leave Cairo, the old half still contained two embryos faintly moving, and one dead embryo, but no eggs. The new half showed four eggs and two very lively embryos on one slide. The addition of fresh fæces would again revive the embryos. The experiment is enough to show that embryos on damp earth in Cairo will live for more than six weeks.

ON EMPYEMA IN CHILDHOOD.

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IN THE LANCET of May 5th, 1894, was published an article recommending incision and drainage of empyemata instead of resection. In the following number a letter appeared from Dr. Sturges pointing out that better results were obtained by resection of a rib, and in verification of the above statement the following tables have (at his request) been prepared. For permission to publish the following cases I am indebted to Dr. Sturges, Dr. Barlow, and Dr. Lees. The cases were admitted to the Children's Hospital, Great Ormond-street, during the period May 1st, 1893, to May 1st, 1894, where it has long been the custom to perform resection in nearly every case. Of 48 cases of empyema admitted during the period above mentioned, resection was performed in 45. The following table shows the age and the number of recoveries and deaths which took place:—

TABLE I.—*Cases of Empyema.*

No.	Age.	Recoveries.	Deaths.	Total.
1	Under 12 months.	1	—	1
2	„ 2 years.	3	2	5
3	„ 3 „	13	3	16
4	„ 4 „	3	3	6
5	„ 5 „	7	—	7
6	„ 6 „	5	—	5
7	„ 7 „	5	—	5
8	„ 8 „	2	—	2
9	„ 9 „	—	—	—
10	„ 10 „	1	—	1
—	—	40	8	48

The following table shows the cause of death in the eight fatal cases.

TABLE II.—*Eight Fatal Case of Empyema.*

No.	Age.	Complaint.	Remarks.
1	2 5/12	Double empyema.	The left side opened, and the right side was aspirated three days before death. At the necropsy pus was found on the right side.
2	1 6/12	Left empyema.	This patient died from diphtheria. The empyema was nearly healed.
3	2 1/12	Left empyema.	Peritonitis was the cause of death ten hours after admission.
4	2	Empyema.	Died from diphtheria. Necropsy showed double empyema.
5	3	Left empyema.	This patient died the day after admission. Post mortem large vegetations were found on the tricuspid valve.
6	1 7/12	Double empyema.	Operation was performed on the right side.
7	3	Left empyema.	Death from pyæmia.
8	3½	Pyo-pericarditis.	At the necropsy localised left empyema was revealed.

A post-mortem examination was made in all the cases except No. 7.

It will be seen that 3 of the above deaths occurred from causes quite independent of the empyema; therefore, deducting these from the whole number, there remain 45 cases, out of which number 5 died, giving a mortality of 11 per cent. Taking the cases under three years of age, 17 recovered and 5 died; but of these 5, it will be seen on reference to Table II., 2 died from diphtheria and one from peritonitis. Thus, out of 19 cases under three years of age, 17 recovered and 2 died, giving a mortality of 12 per cent. Of the total number of cases, 25 were on the left side, 15 on the right, and 8 were double.

TABLE III.—*Cases of Double Empyema.*

No.	Age.	Number of patients.	Recoveries.	Deaths.
1	Under 2 years.	3	1	2
2	„ 3 „	2	1	1*
3	„ 4 „	—	—	—
4	„ 5 „	2	2	—
5	„ 6 „	—	—	—
6	„ 7 „	1	1	—
—	—	8	5	3

* Died from diphtheria.

Deducting one case which died from diphtheria, there remain 7 cases and 2 deaths, giving a mortality of 28 5 per cent.

With regard to a few other points of interest, further resection was required in 5 cases. Two of the empyemata had pointed before admission—one just outside the left nipple, the other over the second and third ribs anteriorly, on the right side. Both were opened in the usual situation—viz., the eighth rib posteriorly. The eighth rib was most commonly removed, and occasionally the seventh or

ninth. The average time in the hospital was six weeks, after which the children were sent to the convalescent home for three weeks.

In conclusion, in cases in which resection was performed, the mortality in the above series of cases was 11 per cent., for children under three years of age 12 per cent., and for double empyemata 28 5 per cent. If these figures be compared with those given in a recent number of THE LANCET[1]—viz., 20 per cent. in all cases, 50 per cent. in cases under three, and 84 per cent. for double empyemata—I think they show that a definite advantage is gained by resection of one or more ribs.

Airlie-gardens, Campden-hill, W.

A CASE OF PERFORATED GASTRIC ULCER; GASTRORRHAPHY; RECOVERY.

BY HASTINGS GILFORD, F.R.C.S. ENG.

THE patient in this case was a married woman twenty-nine years of age, who first showed symptoms indicative of the presence of a gastric ulcer eight years ago, when she vomited blood twice; but, though she has been subject to occasional dyspepsia of an indefinite nature for more than eleven years, she has until recently had no marked pain or return of vomiting. I have known her for five years, during which period I have treated her at times for anæmia and mild flatulent dyspepsia, but I did not suspect the presence of a gastric ulcer until December, 1892, when she suffered from vomiting and epigastric pain. The vomiting appeared to bear no relation to the ingestion of food, and the vomit was free from blood; but, while pressure over the greater part of the abdomen gave rise to no pain, at one spot, which could be covered with a shilling, the pressure of the finger caused acute pain. I diagnosed gastric ulcer, advised her regarding her diet, and prescribed pills containing bismuth and creasote, but did not see her again until the ulcer perforated. I subsequently heard that she had improved so much that she did not consider it necessary to continue the treatment, and that she remained well until April 10th, 1893, when she had a return of the pain and vomited once. She was better on the following day, but the pain still troubled her occasionally. It was not induced by eating, but, on the contrary, was relieved by taking food. On June 22nd, at 10 A.M., after a breakfast at 8.30 A.M. of cold mutton and bread and butter, she was bending over, washing her baby, when she felt a sudden agonising pain a little above and to the left of the umbilicus. She and the baby were alone in the house at the time, but she succeeded with difficulty in walking downstairs to get a neighbour to come for me. When I saw her at 10.30 A.M. she was lying in bed moaning with pain, which she referred to the middle and lower end of the sternum, and especially to the shoulder of each side. Respiration was mainly thoracic and was so increased by deep breathing that she dreaded to take a sufficient breath and suffered from dyspnœa in consequence. As she answered questions her hands involuntarily went to her shoulders, the arms being crossed over the chest, and she cried out with pain. Pain in the abdomen had been slight since the beginning and was referred to the epigastric and left hypochondriac regions, and, while the abdominal muscles were rigid and were sensitive to pressure, the rigidity and tenderness were most pronounced in the same areas. Pain on pressure, moreover, was referred less to the abdomen than to the sternum and shoulders. The features were not shrunken, and there was no coldness of the extremities. She felt sick, but did not retch or vomit until half an hour after I had left her. The temperature was 96·8° F. and the pulse 68, regular, and of normal size and tension. I diagnosed perforation of a gastric ulcer and injected twenty minims of a solution of opium beneath the skin, greatly to the relief of her pain and breathing. The injection had to be repeated twice in the course of the day. The pulse-rate gradually rose, until at 6 P.M. it was 104, while the temperature was 101°. Dr. Moody-Ward saw her with me late in the afternoon and concurred with my opinion that laparotomy was advisable. The operation, therefore, took place at 6.30 P.M., Dr. Abram kindly giving chloroform. An incision three inches and a half in length was made in the middle line, starting half an inch from the ensiform cartilage. After the linea alba had been cut through, the subperitoneal fat and fascia projected like a bladder between the lips of the wound, and on puncturing it gas escaped, together with peritoneal fluid and stomach contents. On introducing the finger into the wound it almost immediately ran into the open ulcer, which was situated on the anterior surface, apparently near the middle. It was too small to admit of the introduction of the finger, but its edges were so brittle that the finger could be forcibly pushed in without difficulty by splitting the callous adjacent surface of the stomach. The edge of the ulcer appeared to be quite half an inch thick. The interior of the stomach was first explored for other ulcers, but with a negative result, and the margins of the perforation were then excised. Ten silkworm gut sutures were next introduced through the whole thickness of the stomach, including the mucous membrane. This material was used because it was evident that catgut would not be sufficiently durable, and silk appeared inadmissible from its greater liability to conduct septic matter along its threads. The number of sutures was necessitated by the length of the wound, which was about two inches, by the extreme brittleness of its tissue, and by the difficulty experienced in bringing the indurated edges together. Two sutures cut through while the others were being put in, and required to be replaced. Finally, when the wound had been firmly closed, a tube was passed into the stomach, and water was poured into it through a funnel, in order to test the efficiency of the sutures. As no water escaped, the abdominal cavity was well irrigated with boiled water and the wound closed, a bulbous glass drainage-tube being first passed through, so that its bulbous extremity rested on the closed ulcer.

On the second day after the operation, when the wound was dressed, there was very little watery discharge, but the tube had slipped along the lesser curvature until it was parallel with the external wound. As it could not be readily replaced it was taken out. The bowels acted loosely seven times in the night, and at 11.30 A.M. she passed urine for the first time for twenty-four hours and a half. She was fed during the next seven days with peptonised milk enemata, varied occasionally with beef-tea or raw meat, six ounces of which were given every four to six hours. On the ninth day after the operation the temperature, which had been normal for nearly forty-eight hours, began to rise, and varied between the extremes of 99·4° and 100·5° for the next five days. The wound suppurated, and she looked haggard and was very depressed. These symptoms indicated to me the presence of pus within the abdominal cavity and the necessity for a return to stomach feeding. Peppermint-water was first given in small and repeated doses, and on the tenth day after the operation two tablespoonfuls of peptonised milk and one of beef jelly were given every hour. Three days later she had advanced to oysters and farinaceous diet. On the fourteenth day after the operation she passed a motion which was said to be capped with pus, but through inadvertence it was thrown away before I saw it. I thought it probable that undigested milk had been mistaken for pus, for the patient felt no indication of an abscess having burst; the temperature was not affected, and no pus was found in the next motion passed. When, therefore, on the seventeenth day after the operation the temperature rose to 103° and the pulse to 132, and her features became anxious, sunken, and haggard, I thought it would be advisable to give chloroform and explore the abdomen in the neighbourhood of the incision with a needle; but fortunately, before carrying out this intention, I got Dr. Moody-Ward to see her, and he advised waiting until the temperature again rose to 103°. The next night at 1 30 A.M. she was suddenly roused from sleep by a sudden sharp pain a little above and to the left of the umbilicus, and almost immediately afterwards called out for the bed-pan. A pale, loose, highly offensive motion was then passed, evidently composed principally of pus, and three other motions of a similar character were subsequently passed during the day. The temperature rapidly fell and two days afterwards was below normal, where it remained. She speedily improved in general condition and three weeks after the operation was sitting up in a chair. During the year which has since elapsed she has increased in flesh and has remained free from dyspeptic trouble. During the first three months of that time the thickened area of the healed ulcer and the ends of the sutures could be plainly felt through the abdominal walls, but no sign of them can now be detected.

[1] THE LANCET, May 5th, 1894.

Remarks.—One of the most interesting features of this case was the absence of those symptoms which are usually considered to be characteristic of gastric ulcer and of its perforation. Thus, in the first place, the diagnosis of gastric ulcer rested almost solely upon the presence of a tender spot over the stomach area, for, though helped by the history of vomiting of blood many years before, this assistance was counterbalanced by the fact of the relief of pain by taking food. But this diagnosis was felt to be so sure that the symptoms which subsequently arose were at once referred to their right source. These symptoms, again, were by no means such as are usually laid down in text-books as indications of perforation of a gastric ulcer. The features and expression were not obviously altered, and nothing could be gathered from the character of the pulse and temperature. Pain was almost solely thoracic and was by no means so acute or attended with such shock as in other cases that have come under my notice. Thus in one instance, when perforation took place, the patient fell down in the street and was quite unable to walk, even with assistance, though her house was only a few yards off. In another case, which came under the observation of Dr. W. J. Maurice of Reading, a servant girl was found dead on the stairs of her master's house, and it was not until a post-mortem examination had been made that the cause of death was discovered, for she had complained of no suggestive symptoms during life. I believe that the above is the first reported case in which the edges of the ulcer have been excised. It seems to me to be of great importance that the edges should be freshened in this way if possible, not only in order to obtain speedier union, but for purposes of cleanliness, as the edges must of necessity be so septic as to be difficult to disinfect by ordinary methods. Much, however, must depend upon the vascularity of the parts. To the same end it also appears of importance that the wound should, if the condition of the patient permit, be ascertained to be secure against leakage of gas or liquid by the use of the stomach tube. Since the publication of my last case of this kind[1] sixteen other instances have been recorded. In Mr. Warrington Haward's case[2] death took place from secondary abdominal abscess in six weeks. Dr. Stirling,[3] Mr. Haslam,[4] Mr. Godlee,[5] and Mr. Pepper[6] did not succeed in saving their patients. Of three cases in the practice of Dr. Maclaren[7] one was a success.

In Dr. Anson's[8] case, which was unsuccessful, a five-inch incision was first made in the median line and was subsequently extended at right angles through the rectus. This method, which I have tried, permits of the freest possible exposure of the whole of the surface of the stomach. The greater part of the organ can, indeed, be dragged, without difficulty, out of the wound, so that a perforation in any part of its surface may be dealt with with comparative ease. It was the method employed by Kriege[9] for a perforation 3 cm. from the cardiac end, which terminated successfully. He also gives details of another case, in which an incision was made from the xiphoid cartilage to within a hand's-breadth of the pubes, and a transverse one cut to the left, and in which the patient died. More recently Mr. Morse[10] has reported a case which recovered, and Mr. Herbert Page[11] two others which were unsuccessful. Dr. Maurice, at a meeting of the Reading Pathological Society, has also lately given details of a case which was nearly successful, the patient succumbing on the eighth day. A post-mortem examination revealed no sufficient cause for death. Of the twenty-seven instances of operation for the treatment of perforated gastric ulcer that I have been able to find recorded, and have mentioned in this and in a previous paper, six have recovered—viz., Mr. Taylor's, Mr. Barling's, Kriege's, Mr. Morse's, Dr. Maclaren's, and the above. When one considers that the extravasation of the contents of the stomach into the general peritoneal cavity has, until lately, been regarded as almost of necessity resulting in death, these results of operative treatment cannot be regarded as otherwise than encouraging.

Reading.

[1] Brit. Med. Jour., 1893, p. 944.
[2] Ibid., 1893, p. 952.
[3] Austral. Med. Jour., 1893, p. 281.
[4] Brit. Med. Jour., Nov. 11th, 1893. [5] Ibid., March 17th, 1894.
[6] Ibid. [7] Ibid.
[8] THE LANCET, March 4th, 1893.
[9] Berliner Klinische Wochenschrift, December, 1892.
[10] THE LANCET, March 17th, 1894.
[11] THE LANCET, March 24th, 1894.

NOTE ON THE ETIOLOGY OF GRAVES'S DISEASE.

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THE influence of depressing emotions and prolonged bodily effort on the genesis of Graves's disease has received ample recognition. Patients not infrequently attribute the onset of their illness to grief or fright, or overstrain from some arduous exertion, and the same factor may come into play in bringing on recurrence of the malady after apparent cure. Whether these causes suffice to start the affection in the first instance is not quite clear, but there is no doubt of their power to hasten the appearance of the more prominent symptoms. This is well shown by a case at present under my care, which I may be allowed to quote, as it illustrates another point to which I shall refer later. A girl seventeen years of age came under treatment in June of last year for enlarged tonsils. She exhibited some tremor and agitation, which increased readily on excitement. The tonsils having been removed under chloroform, two weeks later the patient presented a slight fulness of the middle lobe of the thyroid, which had just come on; prominence of the eyeballs was barely noticeable, and, according to the patient's statement, the trembling now extended to the legs. Ten days later the heart had increased in frequency, and at present all the symptoms of Graves's disease are in evidence. Inquiry elicited that for eighteen months the patient had been subject to attacks of tremor, which occasionally interfered with the power of writing and had latterly been more frequent. The importance of tremor in the diagnosis of Graves's disease is now established, and it is obvious that that affection was developing slowly when the mental impression produced by the operation precipitated its course. Exacerbations are not uncommon from the same cause, the thyroid enlarging and tremor and palpitation increasing under the influence of fear or sustained grief. I have notes of the case of a woman seen five years ago, in whom the affection was lighted up afresh by arduous nursing. It is noteworthy that, while tremor was very marked in the original attack, it did not recur on the later occasion, though enlargement of the thyroid gland was prominent. Anything that conduces to nervous depression may originate or light up an attack. Unhealthy surroundings and insufficient food are not without result. Rendu records a case brought on by large doses of iodide of potassium, and Russell Reynolds believes that atmospheric conditions, such as low temperature, diminished rainfall, and diminished sunshine, may have some significance. These facts are suggestive in relation to the view revived of late years by Möbius that Graves's disease results from diseased activity of the thyroid gland. It seems to be generally accepted that this gland is a secreting organ which pours its juice through the lymphatics into the general circulation. Now, physiological teaching tends to show that secretion in general is diminished or arrested by emotional states and anything that lowers nerve-force. Fear paralyses the action of the salivary glands, and the mental depression and slowing of the circulation induced by prolonged grief are more likely to dry up secretion than promote it. It is true, vaso-motor dilatation is determined by emotional states, but stimulation of the secretory nerves does not necessarily follow, and there may be obvious enlargement of the thyroid gland from vascular engorgement without increased secretion of thyroid juice. Prominence of the gland suggested its primary affection as the essence of Graves's disease, though there is the fact that goitre may come on with exophthalmos some months after other symptoms have set in, as the case quoted above shows; and, on the other hand, there may be enlargement of the thyroid gland long antecedent to any other departure from health. Certain facts give support to the idea that some of the symptoms at least may depend upon excessive secretion of the gland, and these are admirably set forth by Murray. In this relation the tremor first noted by Charcot, and the "rapid heart," are perhaps the most significant. Along with other nervous disturbances they have been noticed after large doses of thyroid extract. But, on the other hand, it is known that similar symptoms follow or are produced by loss of the thyroid gland. Horsley established the occurrence of muscular tremor and other nervous phenomena as the result of thyroidectomy in

monkeys and demonstrated the rhythm of the tremor to be from eight to ten per second, which coincides with that of Graves's disease, given by Marie as from eight to nine per second. Von Eisselberg found identical symptoms in man after total extirpation of the thyroid. In fact, such symptoms constitute the "neurotic" stage of Horsley's experiments, and this would indicate that the change in the gland (if there is any) in Graves's disease is in the direction of arrest or profound alteration of secretion. Much has been made of the contrast between this affection and myxœdema; but here, again, the same experiments prove that the "myxœdematous" condition is but a more advanced stage of the "neurotic" and is clinically supported by the fact that the symptoms of Graves's disease may give place to those of myxœdema. Recent opinion points to the secretion of the thyroid gland as "preventing the development of some toxic product in the blood which poisons the system if the gland is removed." It is probable that some change takes place in the nervous system in Graves's disease, giving rise to the characteristic disturbances. In one other condition we meet also with such symptoms—viz., the climacteric period in women. There may be the same emotional state, some amount of fine tremor on occasions, and hot flushings and sweating, and Kisch has called attention to the "rapid heart" of the grand climacteric. One is not infrequently struck with the resemblance of the nervous disorders in both conditions; they are of the "general sort that accompany depressed nervous force in dependence upon a general innutrition" and are referable to some change that has stamped its impress upon the nervous system.

Cardiff.

A NOTE ON POST-PARTUM HÆMORRHAGE.

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MEDICAL OFFICER OF THE PARISH OF LOCHGOILHEAD AND KILMORICH, AND DISTRICT MEDICAL OFFICER OF HEALTH, ARGYLL COUNTY COUNCIL.

THAT post-partum hæmorrhage is a dreaded complication likely to be encountered at any time is, unfortunately, well known to all, and the following cases which have occurred in my practice illustrate the value of the well-known procedures of compressing and kneading the uterus in this form of hæmorrhage.

A stout young woman was in labour in her first pregnancy. She was of small stature, and when she called upon me previously to her confinement I was struck with the large size of her abdomen, which suggested twins to me; and on seeing her frequently afterwards her whole appearance justified the belief that I might expect some difficulties at labour. She had marks of scrofulous sores on her neck. When summoned to her one evening between 10 and 11 P.M., I found that she had been ill with pains for two evenings previously to her sending for me, but that they had passed off before morning. On making a vaginal examination I discovered that the os uteri was dilated to about the size of a half-crown, that the membranes were ruptured, and the waters drained away. The presentation, which was that of the head, appeared to be normal, but there was a difficulty in ascertaining exactly the actual position, owing to the high presentation. I found there was pelvic contraction, which accounted for the amount of abdominal protuberance, the child being prevented from making the usual descent into the pelvis. I waited for several hours, and as the pains increased in great frequency and strength I examined again. I then found that although the head of the child had descended a little it had become impacted in the pelvis, and that no further progress was being made. As the patient was becoming extremely restless and exhausted, and the pains had much increased in severity, I resolved to apply forceps and expedite the labour. Owing to the large size of the head and the contracted pelvis it required a considerable amount of traction to deliver; some trouble was also occasioned by the body of the child, which was a very large one. The head was elongated to an extraordinary degree by the great pressure exerted on it during its passage. The child when born showed no signs of life, but recovered under artificial respiration. I had no efficient nurse and so had to rely entirely on my own efforts. After allowing the patient a rest of about twenty minutes I proceeded to remove the placenta, which was detached, but on introducing my hand into the uterus I found hour-glass contraction. With my hand within the part where the placenta, which was a large one, was lying encysted, I had no difficulty in removing it in its entirety. Although I had my other hand outside, grasping the uterus in order to steady and stimulate it, there was immediately a tremendous gush of blood. I continued to grasp and knead the womb until it began to contract well, but at first whenever I relinquished these efforts the hæmorrhage recurred alarmingly. At length, when it ceased and I had bandaged the patient and raised the pelvis, I administered a large dose of ergot. The patient was extremely exhausted and pale, but the kneading process proved quite sufficient to check the flow and thus saved the woman's life. In two other cases which I have seen these processes have been equally efficacious. One was the case of a woman in Skye who had been in labour for three days, and whose attendant, a midwife, was very averse to my being called in. On reaching her I found her in an extremely critical condition and, applying forceps, extracted a living child. I then found a second child present, which I also delivered alive after turning. Shortly after removal of the placenta post-partum hæmorrhage supervened, but in the end kneading, &c., proved successful in arresting it. The other case was a primipara. I ascertained some months previously to the time of delivery, on making an external examination of the abdomen, that there was a tumour attached to the wall of the uterus. At term her labour was quite normal up till the third stage, but upon endeavouring to remove the placenta I found, as in the case just narrated, the condition of hour-glass contraction present, and on introducing my hand into the encysted portion of the uterus, where the placenta was, found also an adherent placenta. I detached it carefully bit by bit, for it was in a diseased state; in spite of my care, however, hæmorrhage soon set in so severely and persistently that I was forced to retain my right hand in the uterus for hours, with the left hand externally compressing and grasping the organ before I could induce proper contraction. At last my efforts were rewarded, when the patient rallied wonderfully from her collapsed condition, which required the administration throughout of a considerable quantity of brandy. She afterwards made a good recovery. In this case I am satisfied that the tumour interfered with the proper contraction of the womb, was evidently the cause of the prolonged continuance of the hæmorrhage, and may possibly have had some effect in causing the tetanic spasm of the uterus.

With perfectly clean hands washed in a reliable antiseptic solution I have never found any harm to follow their introduction into the cavity of the uterus, while the fatal results which have now and again followed the injection of such solutions as that of perchloride of iron, even in the hands of careful and experienced obstetricians, must make us chary of employing such methods to arrest hæmorrhage.

Lochgoilhead, Greenock.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

HARPOON WOUND OF THE LIVER; RECOVERY.

BY T. GANN, M.R.C.S. ENG., J.P.,
DISTRICT SURGEON, CORAZAL, BRITISH HONDURAS.

ON Feb. 21st a strongly built man about twenty-eight years of age was admitted into the Corazal District Hospital with the following history. On the previous day he was out in his dorey spearing fish on the Rio Nuevo. The harpoon was fastened to its shaft and pointing upwards. He was standing up in the boat when she gave a sudden lurch, throwing him forwards on to the point of the harpoon, which penetrated his abdomen. On admission about twenty-eight hours after the accident he was much collapsed and complained of great pain all round the wound; about one inch of the harpoon (which afterwards proved to be seven inches in length) was seen protruding from a jagged wound immediately below the tip of the ensiform cartilage. Chloroform was administered and an incision six inches in length was made from the harpoon shaft through the abdominal parietes; the peritoneum was opened, and it was then found that the

harpoon penetrated the right lobe of the liver, and on passing the hand backwards along the under surface of the liver the point of the harpoon could be felt projecting through its posterior border. The difficulty of removing the harpoon now presented itself, as it was armed with two sharp, flattened barbs, about three-quarters of an inch long and two inches apart. With considerable difficulty a grooved director was passed down along the shaft of the harpoon, and upon this an incision was made forwards through the liver substance with a bistoury; the harpoon was now pushed backwards in order to disengage its barbs from the liver substance in which they were embedded, and was then easily removed. The peritoneum was washed out with a 1 in 4000 warm perchloride of mercury solution, and nearly half a pint of dark blood-clot removed. The hæmorrhage from the wound in the liver proved troublesome and was not checked for nearly half an hour. The abdominal wound was closed with five deep sutures, and a large indiarubber drainage-tube was inserted along the track of the harpoon. The wound was dressed with iodoform and carbolic gauze. The drainage-tube was removed on the fifth day, and, with the exception of a rise of temperature to 104° F. on the evening of the third day, the patient had no bad symptom and was discharged with the wound firmly healed on the twenty-first day after admission.

Corazal, British Honduras.

THE VALUE OF OXYGEN IN OPIUM POISONING.

By W. J. C. MERRY, M.B., B.CH. OXON.

THE practice of the inhalation of oxygen in cases with embarrassed respiration has been an established fact for some time past, and its use has been attended with varying success. It has been given in asphyxia from coal gas and other causes, and in many acute diseases attended with dyspnœa and cardiac failure. Its value, however, in opium poisoning with intense cyanosis, dyspnœa, and a flagging pulse, does not seem to have been yet put to the test, and the following case may throw some light on the subject.

A man thirty-two years of age was brought to St. Thomas's Hospital by the police. He had been found lying insensible on the Albert Embankment about half an hour previously, and, all attempts to rouse him proving ineffectual, he was conveyed to the hospital. When I first saw him he was somewhat, though not greatly, cyanosed, and breathing stertorously about fifteen times per minute. He was quite unconscious, his corneal reflex abolished, his pupils contracted and inactive, his pulse rapid and weak, and his limbs flaccid. His breath smelt of chlorodyne, and a quantity of brownish fluid with a similar smell was removed from the stomach by the stomach-pump. After this efforts were made to rouse the man from his stupor, and, with this intention, enforced exertions being out of the question, the interrupted current, flagellation, cold affusion, and strong ammonia to the nostrils were successively tried. The ammonia made him cough slightly, but he responded to this combined treatment only to the extent of indifferent protestations when pressure was applied over the supra-orbital notch. The pulse having shown signs of failure at intervals during this time, hypodermic injections of ether were occasionally administered. At the end of about three hours the patient was very little, if at all, better, and as soon as the battery and other restoratives were discontinued he relapsed into profound coma. The united efforts of three policemen failing to make the patient walk, and his condition at the end of four hours' continuous stimulating treatment being serious, he was sent up to the ward. When seen there shortly afterwards his face was intensely blue, and his lips and fingers livid; respiration was very slow (about eight per minute) and laboured. The pulse was scarcely perceptible and unconsciousness was complete. It was then determined to try the effect of the administration of oxygen. This was given in such a way that only the pure gas, undiluted with air, was breathed, and the inhalation was continued without interruption for twenty minutes. At the end of this time the face had regained a nearly normal colour, the respirations were fuller, easier, and slightly quicker, and the pulse was now perceptible at the wrist, beating regularly about 100 to the minute. The patient was, however, still in a state of stupor, though the eyelids now responded slightly to a touch on the cornea. After an interval of about half an hour the inhalation was repeated with marked effect. Shortly after its commencement the man, for the first time, moved in bed and presently opened his eyes. The whole condition improved so rapidly from this time that before a quarter of an hour had elapsed the patient could tell his name and answer, though in a somewhat rambling fashion, any reasonable question. The inhalations were repeated twice after this for twenty minutes, at intervals of three-quarters of an hour, at the end of which time the patient's condition was so satisfactory that they were discontinued. The man remained in a somewhat drowsy state during the day, but never relapsed into coma, and made a perfect recovery. The patient, on his recovery, alleged that he had drunk two ounce bottles of chlorodyne (a preparation containing, I believe, somewhere about four grains of morphia to the ounce) at midnight—that is, about three hours before the police discovered him. The use of oxygen was suggested by the lividity of the patient and by recent observations upon the destructive effect, apparently by oxidation, of potassium permanganate on morphia. That the oxygen was the turning-point in the case seems to be beyond doubt; but of the exact way in which it acted it is difficult to speak without further experience of its use in similar cases.

I am indebted to Dr. Payne for permission to publish the case.

St. Thomas's Hospital, S.E.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF RUPTURE OF URETHRA TREATED BY IMMEDIATE SUTURE OF THE DIVIDED ENDS OF THE CANAL; RECOVERY.

(Under the care of Mr. WILLIAM ANDERSON.)

ANY method of treatment which is likely to save the subject of a ruptured urethra from the serious results of a traumatic stricture is deserving of attention, and the method described in Mr. Anderson's case is the one which is best calculated to do so. It is most likely to succeed when employed early, but it is not infallible, for when the injury has been severe some sloughing of the urethra, where contused, may follow, and this, combined with the effects of decomposing urine in the tissues, may lead to failure in the most carefully sutured wound. A stricture may follow when there is partial rupture only if the case is treated by the cathether without incision. With regard to these cases of ruptured urethra Mr. Harrison writes: "As a matter of fact, I have observed from a considerable number of cases that rupture of the deep urethra treated by perineal section and bladder drainage, whether a catheter can in the first instance be passed or not, is seldom followed by stricture."

A man thirty-two years of age was admitted into St. Thomas's Hospital on Sept. 15th, 1893. The patient, while jumping backwards off a bicycle, alighted straddlewise on the hinder wheel. On admission he was in much pain; the perineum was greatly swollen and dark from extravasation of blood into the tissues. There was no bleeding from the urethra, and no attempt had been made to pass urine. An attempt was made to pass a catheter, but without success. Ether was then administered, and an incision was made into the swollen perineum in the median line, exposing a large cavity filled with blood clot. After clearing away the extravasation the urethra was found to be completely divided a short distance in front of the triangular ligament, the two ends being separated by a distance of about an inch. An effort was then made to pass a catheter in the ordinary manner, but this was found impracticable owing to the difficulty of fixing the vesical end of the torn canal. A soft No. 10 olivary catheter was then introduced through the wound into the upper opening and pressed on for some distance into the bladder. The other end of the instrument,

which had previously been trimmed to a convenient shape, was then passed through the wound into the lower urethral opening and brought out at the external meatus. This done, the two torn margins of the canal were united by catgut sutures, and the wound was dressed with iodoform. Four days later the catheter was withdrawn, and as it had become encrusted with phosphates the patient suffered a good deal of pain. A No. 8 silver catheter was then passed into the bladder under an anæsthetic. The instrument was retained in place for ten days, the tube being kept clear by occasional injections of boracic acid. After the withdrawal the evacuation of urine could be effected without difficulty, and nothing further was required beyond the occasional passage of a catheter. The man was discharged on Oct. 7th, four weeks and a half after admission, and has since been attending from time to time as an out-patient. There has been no tendency to the occurrence of stricture.

Remarks by Mr. ANDERSON.—The immediate union of the torn ends of a ruptured urethra around a catheter is not always practicable, but when it can be effected it obviates the tendency to stricture which always follows the healing of a gap in the urethra by granulation. The passage of a catheter, however, is often attended by considerable difficulty if the instrument is introduced from the external orifice of the urethra, because the point cannot readily be guided into the vesical segment; but the method employed in this case of entering both segments of the canal through the wound will be found both easy and safe.

ROYAL BERKSHIRE HOSPITAL, READING.

A CASE OF PERFORATING GASTRIC ULCER; OPERATION; DEATH ON THE EIGHTH DAY; NECROPSY; REMARKS.

(Under the care of Mr. W. J. MAURICE.)

IT is difficult to gauge the exact mortality after perforation of gastric ulcer when treated on the expectant plan. There is no doubt, however, that it is excessively high, and that few cases recover from the inevitable peritonitis. It is certain that a large mortality must always follow this accident, for it is not probable that every case will be diagnosed at a sufficiently early stage to admit of the operation; the friends will not consent when it is proposed; the amount of immediate shock may contra-indicate surgical procedure; or the patient may be in a place where it is not possible to obtain the necessary help. Mr. Maurice's case is a very useful contribution to the number of those in which operation has been of advantage in prolonging life, for there is no reasonable doubt that without operation death would have speedily followed perforation. This condition of perforation of gastric ulcer must be placed in the category of those which depend for their successful treatment on the clear recognition by the physician of the fact that medicine is comparatively useless, and that operation *performed speedily* gives the best and usually the only chance of recovery. We are daily seeing proof of the necessity of operation in perforative peritonitis if the patient is to be saved. The perforation here occurred in its usual site, on the anterior aspect of the stomach and towards the cardiac end, but was readily accessible through the medium incision employed. For the notes of the case we are indebted to Mr. T. W. Lochel, house surgeon.

A single woman, twenty-three years of age, was seized on Feb. 25th, 1894, at 7 P.M., with sudden and violent abdominal pain and collapse. The following morning she was seen by Dr. Hurry and Dr. May, and was sent into the Royal Berkshire Hospital with a diagnosis of perforated gastric ulcer. On admission at noon she had a furred tongue; small pulse (120); anxious expression; distended abdomen, especially in the lower part; general tenderness and tympanites; rigid recti; legs drawn up. She was not anæmic and her condition was fairly good. She had previously enjoyed excellent health, but had suffered slightly and occasionally from indigestion. At 1 P.M., under chloroform, a four-inch incision was made in the middle line, immediately below the umbilicus, this situation being chosen because the chief distension was low down and the diagnosis a little obscure. No general peritonitis was found, but a sponge passed down into Douglas's pouch came up covered with lymph. The appendix, ovaries, and tubes having been found to be normal, the incision was prolonged upwards to halfway between the umbilicus and ensiform cartilage, when gas and fluid escaped from its upper angle; it was therefore enlarged still further to the costal margin, with some inclination to the left to avoid a piece of adherent colon. A perforation was now found on the lesser curvature of the stomach near the cardiac end, surrounded by an area of much thickened stomach wall. A stitch was passed through the serous and muscular coats on each side of the perforation, but it cut out at once and the thickened area was so extensive and so rigid that it was evidently impossible either to excise the ulcer or to close the perforation; it was also quite impossible to bring the injured part of the stomach into contact with the abdominal wall. The free anterior wall of the stomach was therefore attached by one silk suture on each side to the upper part of the abdominal wound; the general peritoneal cavity was thus surprisingly well shut off from the enclosed portion above, into which the perforation opened. The lower part of the incision was then closed after careful washing and sponging, a glass tube being left at the lower extremity to drain Douglas's pouch. The upper two inches were left open and a large rubber tube was passed through into the stomach, the distance between the abdominal wall and the ulcer being three inches. The dressings were so arranged as to keep the upper and lower portions of the wound as far as possible distinct. The operation lasted about one hour. The patient rallied well, but one-third of a grain of morphia was given at night, as she had a little pain. On the fourth day the glass tube was removed, as it was perfectly dry. On the fifth day she seemed rather weak, but there had been no vomiting at any time and no tenderness or distension, and the abdominal muscles moved well. The highest temperature was 100° F. on the night of the operation; the pulse had fallen from 120 to 104. She had been fed entirely per rectum. On the sixth day she was decidedly weaker; peptonised beef-tea by the stomach produced no improvement. On the seventh day at 3 A.M. she had an attack of pain—the first since the day of the operation. It was completely removed by an injection of morphia (¼ gr.), but her pulse was growing weaker and quicker, and though there were no other bad symptoms she was evidently becoming worse. She died at 3 P.M. on the eighth day after the operation.

Necropsy.—Beyond a little suppuration about some of the stitches, a very small amount of superficial pus beneath the wound, and a patch of lymph the size of half a crown between the spleen and the diaphragm everything was satisfactory. The pelvis was perfectly dry and healthy, and the stomach was securely fixed to the abdominal wall. All the organs seemed normal.

Remarks by Mr. MAURICE.—1. The operation relieved pain, prolonged life, and gave a chance of recovery. 2. The low incision in this case revealed the presence of pelvic peritonitis. Perhaps in any similar case it might be well to make a small opening below the umbilicus for the purpose of exploring and, if necessary, draining the pelvis. 3. The simple suturing of the stomach to the abdominal wall secured perfect coaptation and suggests the possibility of success by a rapid operation, even in the presence of much shock. 4. Perhaps feeding should have been begun sooner, but when it was begun it produced no improvement. It is impossible to say how much of the beef-tea escaped into the dressings. Possibly the tube might have been passed on into the pylorus, or, on the other hand, no tube might have been used and the wound packed with gauze instead. 5. It would be interesting to know what exactly was the cause of death. Peritonitis was practically absent and nothing suggests toxæmia.

MR R. KIMPTON, the oldest bookseller in London and probably England, whose name has been familiar to generations of medical students, died on the morning of Saturday, May 26th, aged ninety-one years. He began his business as a bookseller over fifty years ago; and during his half century of active work it is no exaggeration to say that the majority of London medical students have dealt with him.

GREAT NORTHERN CENTRAL HOSPITAL.—The committee of this free charity has received the sum of £400 from the trustees of Smith's (Kensington Estate) Charity, towards the large debt on the maintenance fund. The committee have elected as their secretary Mr. Lewis H. Glenton Kerr, late assistant secretary at the Middlesex Hospital.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

The Use of Chlorine Gas in the Treatment of Chronic Ulcers of Leg.—Pancreatic Cyst with Diabetes—Purpura Hæmorrhagica following Influenza, successfully treated with Sodium Sulpho-carbolate.—Annual General Meeting.

THE last ordinary meeting of this society for the present session took place on May 25th, the President, Mr. HULKE, being in the chair.

Dr. DIVER read a paper on the use of Chlorine Gas in the treatment of Chronic Ulcers of the Leg. The cases of two aged women in the lower ranks of life formed the subjects of treatment. The gas used was formed by pouring about two drachms of potassium chlorate, with one drachm or more of hydrochloric acid, into a pickle or marmalade jar, the outside of which was covered with brown paper. After this a disc of white paper was introduced, and on top of the paper a sufficiency of absorbent wool; a large cork was then fitted to the neck of the jar. The wool, yellowish green on the surface when at first exposed to view, was then placed over the ulcer in each case and quickly covered by gutta-percha tissue; then the patient was left to do in the way of bandaging or covering what she had been used to. No rest was enjoined. The gas was probably chiefly chlorine with some peroxide of chlorine in mixture. The first patient had on commencing treatment a varicose ulcer on each leg between the calf and the ankle. Both steadily improved under treatment, and the left leg was well by Jan. 23th, 1894, having been under treatment eight weeks, and the dressing having been applied three times weekly. This leg had never been healed for twenty-five years and at the time of commencing treatment was over 2 inches long by nearly 2 inches wide. The second ulcer was now nearly well, but its progress was impeded by an accident and by several other circumstances. The second patient had a large annular ulcer which originated in a cat's bite some twenty years ago. Its boundaries were from a little above the ankle to near the middle of the calf, and it was very deep. This was treated in exactly the same way, and soon its ashy surface showed granulations, which went on increasing until the level of the skin was reached in the middle of January, after six weeks' treatment. Since then the ulcer had maintained its granulations, had narrowed very considerably its area, and was now steadily improving. The patients were exhibited to show their present condition. Drawings of the ulcer in the second patient were shown to illustrate its appearance on the commencement of treatment and on April 7th last.—The PRESIDENT congratulated Dr. Diver on the satisfactory result obtained. It was difficult to understand how the chlorine gas could be successfully imprisoned in the wool for many hours with the patient walking about.—Dr. BENHAM asked Dr. DIVER what made him think of using chlorine gas.—Dr. DIVER, in reply, said that years ago he had been told that the grains of corn in the hand of a mummy would not germinate unless they were dipped in chlorine water. He himself had demonstrated that the germinating power of poor samples of barley was increased by 7 or 8 per cent. by being dipped in chlorine water. This led him to experiment with chlorine as a local stimulant.

Dr. CHURTON (Leeds) read a paper on a case of Pancreatic Cyst associated with Diabetes; the cyst was incised, and on death a year afterwards atrophy of the pancreas was found. A man aged thirty-five was admitted into the Leeds General Infirmary on Nov. 23th, 1892, complaining of pain in the abdomen and back, and intestinal rumblings. The epigastrium was prominent, and the pyloric third of the stomach, evidently pushed forward by a tumour behind it, splashed on palpation. The whole left hypochondrium was dull. The transverse colon was separated from the stomach by a dull area of varying width. The urine contained sugar; its specific gravity was 1033; its quantity was not yet markedly increased. The patient had become mentally and physically rather low and weak; his face and lips were pale. His family was not a robust one; he himself had never been strong, but his three children were alive and well. He had never had any abdominal injury; he had been markedly dyspeptic for three years, and six months before admission, when there was influenza in his family, he had shivering, nausea, and pain in the epigastrium for several days, supposed to be caused by gall-stone. Exploration in the eighth left intercostal space in the mid-axillary line found fluid of a dirty olive colour, containing very little ordinary albumen. A slight circumscribed peritonitis followed the puncture. On its subsidence in a few days the patient was transferred to Mr. E. Ward for operation. Having made an incision in front, Mr. Ward drew off the fluid through a trocar and then, having enlarged the opening in the cyst, passed his finger through the cavity to its posterior wall below the last rib, made an incision at that part for drainage, and closed the cyst and the wound in front. Dr. Arthur Clarkson, Demonstrator of Physiology in the Yorkshire College, gave the following (epitomised) analysis of the fluid: "Slightly alkaline; sp. gr. 1015; deposits red blood cells and leucocytes, the latter in the greater quantity; some broken or ill-formed plates, doubtful cholesterine, serum-albumen, peptone, blood, pus, and mucin, but no sugar or bile, found by chemical testing. Spectrum of methæmoglobin. No trypsin; no fat-splitting or milk-curdling ferments; a starch-converting ferment (amylopsin) is present." The patient returned to the medical ward on Jan. 30th, 1893, and was there treated with pancreas extract, or liquor pancreaticus, and various kinds of diet, including grapes, one-third of a pound daily, which appeared to considerably increase the quantity of sugar in the urine. In February there was a trace of acetone in the urine. In March the discharge from the sinus, which had been clear and watery, again became purulent, but remained small in quantity until September, when it was increased, and there were signs of re-accumulation of pus behind the stomach. Purpura appeared on the feet and legs at this time. For two or three months he had been an out-patient and improperly and insufficiently fed. Mr. Ward enlarged the sinus, liberating much pus; but the suppuration afterwards, in spite of further incisions, spread behind the peritoneum, invading the ureters and kidneys, and at length the patient died on Jan. 7th, 1894. The pancreas was a mere mass of fibrous tissue, in which no trace of gland-tissue could be discovered by the microscope. In the duodenal end there was a very small cavity, apparently the remains of the former cyst. The duct could be slit up for about an inch and a quarter from the junction with the bile duct in the papilla, when it stopped abruptly at a thick fibrous wall. There was no calculus. Three small branch ducts could be traced from it; they also ended in fibrous stroma. The thin body of the organ was composed of vessels and fibrous tissue. With respect to the treatment of pancreatic cysts, surgical opinion seemed to favour incision rather than aspiration; but Dr. Churton, instructed by the present instance, considered aspiration preferable in cases associated with glycosuria, since (1) the glycosuria was a sign that the pancreas had become atrophied; (2) that being so, it did not appear that life could be much prolonged, even with the aid of pancreas extracts; (3) diabetic patients were more likely to become a prey to septic organisms; (4) pancreatic cysts had been cured by aspiration; (5) in eight successful cases treated by incision to which he had been able to refer glycosuria was not present; and (6) he had not been able to find records of any successful cases in which it existed.—The PRESIDENT said that these cases were so infrequent that few could have large experience of them. An analysis of the fluid withdrawn, though valuable in recent cases, was of little good in cases of old cyst, the contents of which were much altered in the course of time. Surgically, cases of pancreatic cyst could be divided into two categories: those relatively stalked and mobile, which were comparatively easily extirpated or brought to the surface and drained, and those which were broadly sessile and fixed, which were less easily manageable. It might be found impracticable to bring the opening made in them up to the surface and fix it there by suture, and deep drainage of these sessile cysts was a measure only to be adopted as a last resource.—Mr. PEARCE GOULD said that since he had published the two cases which were referred to in the paper he had met with a third instance in a female who had complete jaundice, and a tumour as large as a fist was found in the epigastrium. There was no glycosuria. The cyst was opened and drained, but she died on the third day with signs of peritonitis. A large cyst involved the head of the pancreas, and the common bile duct was flattened out and difficult to trace. As to the propriety of aspirating these cysts this must always be a dangerous procedure, for the cysts were often difficult to expose on account of the overlying viscera. Then again the fluid was usually exceedingly thick and difficult to flow out through the

cannula. The aspiration of any intra-abdominal swelling was not to be recommended, and in cases of glycosuria it was probably best to adopt no operative procedure at all.—Mr. WALLIS agreed that aspiration was not a sound surgical procedure for any abdominal swelling, and he had seen alarming results follow its adoption in cases of hydatid cyst.—Dr. CHURTON, in reply, said that as a rule he preferred exploration by opening the peritoneum, but in these diabetic persons, who, it had been shown, were more prone than others to septic infection, he preferred aspiration, especially as single aspiration of a pancreatic cyst had been reported to be followed by a successful result.

Dr. SANSOM read a paper on a case of Purpura Hæmorrhagica following Influenza, which was successfully treated with Sulpho-carbolate of Sodium. A girl aged twelve was admitted into the London Hospital on Nov. 15th, 1893, in an extremely feeble and critical condition. Extravasations of blood were seen about the eyelids; there was much oozing of blood from the mouth; hæmorrhagic stains and spots were observed on the skin covering the chest, abdomen, back, as well as the upper and lower extremities. Bullæ (as of pemphigus) containing deeply blood-stained fluid were upon the left ala nasi, over the abdomen, the arms, and the legs. The tongue, generally stained darkly, presented several small bullæ over its dorsum and sides; similar blebs were seen within the lips, all containing blood-stained fluid, some bursting and liberating their contents to produce oozing from the mouth. There was vomiting, the vomit being blood-stained, and much blood was voided with the evacuations. The urine contained a trace of blood. The pulse was 124, and the respiration 34 per minute; there was cough with deeply blood-stained sputa; bronchitic râles were heard on the chest and over the front and base of the right lung. The temperature on admission was 98·8° F., but rose on the day following to 103·8. Half-drachm doses of sodium sulpho-carbolate were administered every four hours. During the next five days the patient was in a very critical condition, the signs being little changed. After nine days, though there were indications of some general improvement, hæmorrhagic extravasations were observed on each fundus oculi, with signs of double optic neuritis. There was, however, continuous amendment, though the temperature rose on one day to 105°, and on the next to 104°. All the morbid signs passed away, and the patient was discharged quite well after having been in the hospital for thirty-six days. It was thought probable, considering the mode of onset and the accompanying pyrexia, that the disease in this case was due to an infective agency. Collateral evidence showed that influenza might be attended with the signs and symptoms noted. In a well-marked case the administration of sodium sulpho-carbolate in half-drachm doses every four hours for a protracted period had been practised, and the patient completely recovered. Encouraged by this, Dr. Sansom adopted the like plan of treatment in the case now brought forward; the recovery was equally satisfactory.

The annual meeting was then proceeded with. The report of the council showed that the affairs of the society were in a very prosperous condition, the members now numbering 535. The financial condition of the society was likewise highly satisfactory. In consequence of the great interest shown by the members of the society in the exhibition of living specimens it was agreed to devote the whole of at least three evenings each session to this branch of the society's work. The meetings would begin at the usual hour of 8.30 P.M., the members to give notice of their intention to exhibit living specimens up to four days before the meeting, and a list of the specimens would be sent by post to every member in the United Kingdom. The usual votes of thanks to the retiring officers having been carried, the following were elected as office-bearers during the ensuing year:—President: John Whitaker Hulke, F.R.S. Vice-Presidents: Sir George Buchanan, M.D., F.R.S.; Frederick Taylor, M.D.; T. T. Whipham, M.B.; J. G. Glover, M.D.; John Langton, and Robert William Parker. Treasurer: William Miller Ord, M.D. Council: W. H. Allchin, M.D.; Thomas Barlow, M.D., W. H. Day, M.D.; Henry Handford, M.D.; W. P. Herringham, M.D.; Constantine Holman, M.D.; H. Montague Murray; M.D.; Sidney Phillips, M.D.; G. Newton Pitt, M.D.; Frederick Roberts, M.D., Dawson Williams, M.D.; C. A. Ballance, M.B., M.S.; William Henry Bennett; W. Watson Cheyne, M.B.; W. Bruce Clark, M.B.; Victor Horsley, M.B., F.R.S.; W. Arbuthnot Lane, M.S.; G. H. Makings; A. W. Mayo Robson; and J. Bland Sutton. Honorary Secretaries: W. Hale White, M.D., and A. Pearce Gould, M.S.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

An Unusual Case of Exophthalmic Goitre.—Notes on Cases of a Severe Type of Influenza.

A MEETING of this section was held on May 11th, Dr. W. G. SMITH, President, being in the chair.

Dr. CRAIG exhibited the patient and read a paper on an unusual case of Exophthalmic Goitre. This was the case of a girl in whom the eyeballs were markedly prominent and the lower half of the bulbar and palpebral conjunctiva of each eye formed a red protruding mass which buried the edges of the lower lids completely beneath it. The lower portion of each cornea was ulcerated, there was no anterior chamber, and in the right eye a small mass which appeared to be the obtruded lens lay on the swollen tissues. The upper lids were freely movable, and the conjunctiva underneath was red and congested, but free from chemosis. The sight was gone, except that the patient could distinguish light from darkness, and the pain was so intense that sleep had been impossible for nearly a week. The outer canthus of each eye was divided by scissors, and subsequently several incisions were made in the swollen mass by transfixing it with a narrow cataract knife from the corneal margin to the edge of the lower lid. Although the eyeballs protruded still further, the swelling was considerably reduced and the patient was enabled to sleep. This treatment was satisfactory in so far as it averted destruction of all the tissues of the eyes, and gave relief to the girl, but although the acute symptoms subsided the ulceration extended to the upper part of the cornea, the sight did not return, and the swollen red mass still persisted at the end of a year, so that it was found necessary to place the girl in an asylum for the blind. Dr. Craig said he had been unable to find any record of such a similar serious complication, and that space did not permit him to discuss in full the theories that had been put forward with regard to the pathology of this perplexing disease, but he pointed out the importance of the thyroid gland as a blood-forming and metabolic agent in health. The last point touched on in the paper was the fact that Graves' disease had been observed in animals—a reference to which will be found in an article in THE LANCET of August 20th, 1892.—Sir WILLIAM STOKES said he had seen the patient shortly after her admission to hospital. The chemosis of the conjunctiva and the exophthalmos, especially the former, were much more striking then.—Dr. H. C. TWEEDY said that many years ago he had seen inunction of red mercurial ointment tried in one of these cases, with the result that the patient's sufferings were much increased.—Mr. W. J. THOMPSON asked what line of treatment had been adopted in the present case. He had heard that in some cases there had been observed, post-mortem, changes in the inferior cervical ganglion.—The PRESIDENT said that it was worthy of note that there had been no history of a fright previously to the development of the disease in this case.—Dr. CRAIG replied.

Mr. BURGESS commenced his paper on certain cases of a severe type of Influenza with the queries: (1) Are severe cases merely neglected forms of the common form of the disease? (2) are they of the nature of malignant types of fever attacking internal organs primarily? (3) is the medical treatment, beyond relieving the accompanying neuralgia, of any use? and (4) does one attack confer an immunity? The first case was one of adynamic pneumonia in a woman, fifty-one years of age, with extreme cyanosis, subnormal temperature, and rapid death. The second was more protracted, the point of interest being the extensive consolidation of the right lung, without breath sounds or vocal resonance—the phenomena of Grancher, also described by Skoda. Several exploratory punctures were made in the case without disclosing any fluid. The third was a milder type in the beginning, but was followed by gangrene, evinced by fetid sputa and other signs; the identity was pointed out with the gangrene du poumon courable Saseque. The case ran a favourable course under treatment. The fourth was a case which presented peculiar features; it was one of rapidly spreading pneumonia of the left lung, ending with copious discharges of pus by the mouth. In the early part there was high tympany over the upper left lobe. Mr. Burgess alluded to the different explanations given of this sign by Stokes, Williams, Gee, Skoda, and Guttman, and stated that although

not uncommon in pleurisy, its existence in pneumonia, so exaggerated, was rare. The site of the abscess was doubtful; there was no pneumothorax, yet the quantity and character of the fluid simulated empyema. He was of opinion that one attack had a protective tendency, and gave facts to support his belief.—The PRESIDENT said that he agreed with Mr. Burgess that pneumonias following influenza were peculiar. They lacked the characteristic rusty sputum and crepitus over the lungs, and were frequently complicated by limited pleural effusions. The bandbox sound be frequently observed in cases of pneumonia and of pleural effusions. As regards the treatment nothing was of much avail except in the early stage, when the medical attendant could lower the temperature and relieve the headache. Careful nursing, careful feeding, and rest for a sufficient length of time were what were needed after this.—Mr. W. J. THOMPSON and Dr. CRAIG also spoke, and Mr. BURGESS briefly replied.—The section then adjourned.

SECTION OF SURGERY.

Naso-pharyngeal Fibroma.—Hydroceles of the Neck.

A meeting of this section was held on May 4th, Sir WILLIAM STOKES being in the chair.

Dr. WOODS read a paper on Naso-pharyngeal Fibroma. The patient whose case was detailed was a young man aged twenty-four, who, about May, 1888, noticed a difficulty in breathing through his nostrils. This difficulty progressed to complete nasal obstruction, associated with giddiness, failure of memory, and great drowsiness. Towards the end of 1889 he was operated on by two American surgeons consecutively, but without being materially improved. In 1891 he placed himself under the care of Dr. Thornley Stoker, who operated on his nose from the front, but who did not attempt a radical removal of the growth owing to the extent of its attachments and the severity of the hæmorrhage. Dr. Stoker, in January, 1892, transferred the case to Dr. Woods. At this time the whole naso-pharynx and the greater part of the left nasal fossa were filled with a typical fibroma. Nasal respiration was completely stopped, and the voice was without nasal tone. Dr. Woods repeatedly operated with the galvanic snare and lopped off pieces until the snare would no longer grip. He then devised an instrument which he calls a "galvanic curette," and which consisted of a semicircle of platinum wire brazed to the ends of two insulated copper rods; the platinum arc could be heated at will by an electric current. With this instrument he ploughed the tumour away piecemeal, sometimes attacking it from the front through the nostril, and sometimes from behind through the naso-pharynx. The patient never suffered very much, and the bleeding was never very considerable. By January, 1893, the tumour was completely removed, and the patient perfectly well again. His voice was quite normal, and admitted of his adopting the stage as his profession. The advantages claimed for this method of operating are the following:—1. It is less dangerous and more certain than any other method, experience proving the bleeding to be trivial. 2. The patient is neither maimed nor disfigured, as frequently happens in cases of operation where the nose is cut or the palate divided by any of the well-known methods. 3. There is no danger of injuring healthy structures, since the operator can see exactly what he does.—Sir WILLIAM STOKES congratulated Dr. Woods on his success.—Mr. SWAN wished to know if this method could be applied to removing osseous growths.—Mr. F. NIXON asked Dr. Woods if he thought the disappearance of the somnolence was due to the removal of the tumour.—Dr. MAXWELL said that inability of concentrating the mind upon work is a rather common symptom in adenoid tumours occurring in the naso-pharynx.—Dr. MYLES mentioned a case in which he had assisted the late Dr. Robert M'Donnell. The patient had a recurrent growth in the naso-pharynx. It had been previously operated on by the snare, but had recurred. Dr. M'Donnell determined to try and gouge away the growth from the front. He succeeded in detaching the tumour, but the hæmorrhage was something appalling. The patient recovered, but the growth afterwards recurred and the patient came under the care of Dr. Thomson at the Richmond Hospital.—Dr. THOMSON said that he had not much difficulty in removing the recurrent growth when the case came under his care.—Mr. CHANCE wished to know if the time of treatment would be shortened if a plastic operation giving greater room were first done and then Dr. Woods' instrument immediately applied.—Dr. WOODS, in reply, stated that diminished likelihood of recurrence of the tumour he considered to be due to the method being more thorough. He saw no reason why the instrument should not be used to remove exostoses, particularly those in the external auditory meatus. In all cases of naso-pharyngeal tumours there existed in the patient great stupidity. The drowsiness and somnolence he considered to be this stupidity in a greater degree. With regard to Mr. Chance's suggestion, he did not think that it could be followed, because the very essential for success in the operation was that the operator should see exactly what he was doing. The bleeding consequent on a plastic operation would prevent this.

Dr. WHEELER read a paper entitled "On Hydroceles of the Neck."

Reviews and Notices of Books.

An International System of Electro-therapeutics. By HORATIO R. BIGELOW, M.D. Philadelphia: The F. A. Davis Company. 1894.

[FIRST NOTICE.]

THIS is an octavo volume three inches in thickness. It contains about 300 illustrations, and is the work of thirty-eight "associate editors." Accustomed as we are to "a big thing" from the other side of the Atlantic, we were scarcely prepared at the present moment for this colossal addition to the literature of electro-therapeutics. Everything about it is on an extensive scale. Its index consists of twenty-one double-column pages. It comes from a country where "10,000 physicians make use of electricity as a therapeutic agent daily"—one of its authors makes "personally" with assistants "not less than 20,000 electrical applications annually." Its pages, too numerous for ordinary notation, have first to be grouped by letters of the alphabet and, thus subdivided, to be numbered in the usual way. It is a great work, great in bulk, great in excellence—approaching greatness even in its errors. For proof of the latter it is not necessary to go beyond the preface. Evidences of very careless revision are plentifully apparent. Thus at page v. and following pages a quotation may be noted which contains no less than five glaring mistakes. Invaded becomes "evaded," conventional becomes "conversational," 2·5 watts becomes "2 to 5 watts" (twice), "such a spark-gap requires 9000 volts to overcome it" becomes "every spark-gap requires 9000 volts to overcome it." Errors like these can scarcely be forgiven, and deserve the attention of that "prince among printers," so justly praised in the same preface.

With few exceptions the authors are American. Almost encyclopædic in its completeness, the volume is a mine of information well arranged and easily accessible. It is not, perhaps, an "epoch-making" work. It is not, as was Erb's book, to the English reader a revelation and a new scientific departure. But it is well up to date; it makes us familiar with methods of treatment and fields of research which are comparatively new and unexplored; what has hitherto been a mass of loose and scattered material it gathers together and presents in solid and orderly array. The essays being by different authors necessarily overlap a little, but this cannot be considered a disadvantage. There is, however, about some of them a diffuseness which, had the work been by a single author, the captious critic might perhaps call "padding." It may be mentioned that the reader who expects an author to suppress the "ego," and as far as possible to efface himself, may perhaps be struck by the strong personality that pervades some of these essays.

Intended for "students, general practitioners, and specialists," the aim of the work is to cover the whole ground of

electro-therapeutics, including electro-physics. With reference to the latter it has on other occasions been suggested that the best instruction on this part of the subject is not to be looked for in medical literature. Although the present volume does not afford ground for a change of this opinion, it may be freely allowed that the opening chapter on Electro-physics is accurate and effective. Its indebtedness to Professor Oliver Lodge is in places very apparent. This is followed by a short chapter on Animal Electricity. The plate showing the malapterurus with the current led off by two shields is after Du Bois Reymond, and Fig. 6, showing a vertical section of the electric organ of a skate, has appeared in "Landois and Stirling's Physiology." The article on Static Electricity is by an author who has made the subject his own. Here, again, we are introduced, and this time more formally, to Professor Oliver Lodge, whose views are clearly stated and whose language is closely followed. Thus the author (p. A 84), "so electricity has annexed the whole domain of optics"; Professor Lodge, "the whole domain of optics is now annexed to electricity."[1] Again, the author (p. A 85), "but we must remember that all cavities, as well as the rest of the medium, are completely full of the universal fluid"; Professor Lodge, "all, however, cavities as well as the rest of the medium, are completely full of the universal fluid."[2] The next article discusses the Faradaic or Induced Current, and is one of the most important in the book. It is not too much to say that the future of the faradaic current for medical purposes is somewhat uncertain. In the "static induced," in the purely sinusoidal, and in currents of high frequency and potential it already meets formidable rivals. It could, however, have found no more able or enthusiastic advocate than the well-known author of this essay. He "fully believes with Stein that in the mechanical vibratory action of the faradic current we must seek the cause f its physiological action." It may be easier to follow him in this than in the opinion that "the faradic current is the most effective means of muscle stimulation." Here the question suggests itself whether the "static induced" is not likely in point of effectiveness to prove its equal, and in point of painlessness its superior. The paragraphs devoted to the Electric Bath do not add to our knowledge of hydro-electric methods, and are probably the weakest part of the essay. The information given seems not only scanty, but sometimes of doubtful accuracy. To say that in a bath (temperature 38° C.) "the R. of the body and of the water is the same," is to say a great deal more than has yet been proved. The statement that the body receives one-sixth of the current is also one awaiting proof—a proof not likely to be soon forthcoming. Even if this estimate should prove correct, it is difficult to see how "from a current of 200 milliampères the patient receives 40." Further, to say with reference to the electric douche that the "spray" is "the rheophore" is a statement that can scarcely be reconciled either with the facts of experience or the principles of physics. It is clear that a fluid can act as a conductor only so long as it remains whole; but spray is composed of particles in a more or less minute state of subdivision, having an appearance, perhaps, of continuity, but possessing no real conductivity in an electrical sense. The author seems to think that a wire dropped into the bath "answers precisely the same purpose" as the large electrodes ordinarily used. A few simple experiments with a galvanometer in circuit will convince him that alteration in the size of the electrodes will alter both diffusion and current strength, but to a less extent, perhaps, than might have been expected. It may further be noted that, although in a preceding sentence a little gentle sarcasm had been levelled at the authors of "Medical Electricity" for estimating quality and therapeutic effect by the "feel" of a current, when it comes to a question of dosage in the faradaic bath the author himself has nothing more definite to say than that it should never be "very strong," but that it must be "distinctly felt." When the question of coils, their construction and therapeutic properties, comes under discussion the author is at once on his own ground. He considers that the nearest approach to perfection at present is "the new Engelman," which he states differs from all other coils in the main on the following points:—1. "The separation of the interrupter or vibrator current from the inducing flow" (the interrupter is a small motor driven by an accumulator of Grenet cell). 2. "The variability, controllability, and rapidity of the interrupter." 3. "In the range and precise definition of the secondary coils." 4. In the possibility of interrupting or alternating the primary or secondary coil at will." The question of altering physiological effect by the rapidity with which interruptions succeed each other, and the immediate cause on which this depends, have already received attention in THE LANCET.[3] It is to be remembered that the more rapid the alternation the greater the back or opposing electro-motive force of self-induction. The Edelmann faradimeter (which by-the-bye has also an independent source of supply for its contact breaker) is mentioned, but not with approval, as a measuring instrument. On the whole, this article is probably the best essay on medical coils yet written. It must impress, it must almost appal, the ordinary reader by its detail and completeness. As he makes acquaintance with the "short fine wire counter-irritant coil," the "sedative coil," with its from 1000 to 12,000 windings, and with the "fine wire multiple muscle coil," and with all the delicate mechanical arrangements for every "nuance" of therapeutic indication, his mind may revert to the coarse instruments and crude procedure associated with faradisation in this country, and hearing, as he often must, the well-worn formula that "electricity has been tried and failed," he will at least have learnt one reason more for its failure.

[1] Modern Views of Electricity, Lodge, p. 336.
[2] Ibid., p. 21.

The Health Resorts of Europe. By THOMAS LINN, M.D. Second Edition. London: Henry Kimpton. 1894.

WE reviewed Dr. Linn's work on its first appearance and felt constrained to pronounce it a very sketchy and slender account of a large and important subject. We have looked through the work again on the appearance of the second edition, and we see no reason to alter or modify our original verdict. Let our readers judge for themselves. The following is the sole account given of the therapeutic applications of so important and famous a sanatorium as Davos: "Therapeutics—neurasthenia, anæmia, convalescence, dyspepsia, and certain forms of phthisis. Here the general habit and temperament of the patient are of such vast importance that no patient should be sent to these climates except by a physician who understands not only the climate, but the constitution of the patient. Nervous asthma does well here, but not when dependent upon emphysema." In other words, Dr. Linn completely shirks the very important and by no means insoluble question, What cases of phthisis are suitable to Davos? When we turn to such important resorts as Pau and Madeira, we get information equally vague and meagre. Nice, where the author resides for a portion of the year, comes in for a more extended notice. Dr. Linn still seems in love with the *mistral*, regards Nice as a sheltered resort, and makes light of the allegation that the climate produces insomnia. Nice, we are informed, is "the providence of the aged and the weak." Every dyspeptic "gets a good appetite and assimilates his food

[3] THE LANCET, Aug. 19th, 1893.

well" there. Diabetes, Bright's disease, and skin diseases "are all relieved." "All women's complaints are vastly improved," &c.

The Ophthalmoscope: a Manual for Students By GUSTAVUS HARTRIDGE, F.R.C.S. With Sixty-seven Illustrations and Four Plates. Second Edition. London: J. & A. Churchill. Pp. 156.

WE are glad to see that a second edition of the excellent manual on the ophthalmoscope by Mr. Hartridge has been called for. It is written from beginning to end in very simple language, and there is no part of it that can not be followed by a student who possesses the most elementary knowledge of the structure of the eye. It should be read in conjunction with the author's work on "Refraction." To explain clearly, it is requisite that the speaker or writer should himself have clear ideas on the subject he undertakes to expound, and judging by this standard Mr. Hartridge may be held to possess an exceptionally good knowledge of the theory and practice of the ophthalmoscope. The engravings he has decided to introduce to illustrate the text are well chosen and, what is of almost equal importance, well printed. It too often happens that in figures intended to illustrate diagrams in optics the lettering is indistinct or incorrect, and the reader tries in vain to follow in the engraving the letters of the text. Here no such difficulty exists. Every figure and letter is clear and distinct. The first chapter deals with the optical principles involved in the use of the ophthalmoscope, and it can be read and understood by those who possess no mathematical knowledge. The various forms of the ophthalmoscope are then described, and full details are given of the mode in which an ophthalmoscopic examination should be conducted both by the direct and the indirect method. The appearances presented by the normal and the abnormal fundus occupy the remainder of the work. This manual will be found extremely serviceable to those who are commencing the study of the diseases of the eye and forms an excellent introduction to the larger and more elaborate work of Landolt. In the short compass of 156 pages Mr. Hartridge has condensed all the more important facts in relation to ophthalmoscopy. The work is singularly free from typographical errors. We only notice one where Galezowski is incorrectly spelt Galizowski.

LIBRARY TABLE.

WE have received the summer number of the *Illustrated London News*, and can hardly speak too highly of the good taste and energetic enterprise which have presided over its issue. The fiction is contributed in the shape of short stories by, among others, the ever-green Miss Braddon, at her best; the very modern and whimsical Mr. Zangwill; Mr. Bret Harte, and in "A Rose of Glenbogie" the main situation is typical of the author, while the treatment is as elaborate as usual; Mrs. Woods, not very merry, but, at any rate, not so sad as in her masterpiece; and Lady Lindsay, whose pretty Scotch story holds its own in this good company. There are also two dialogues: a long one by Mr. Max Pemberton, admirably illustrated by Mr. Caton Woodville, being dated that century and a quarter ago when European costume lent itself to illustration; and a short one by Mr. Anthony Hope, which is as pithy and neat as the "A. H." dialogues always are. The number contains two coloured supplementary pictures: a very characteristic Kate Greenaway, entitled "Primroses," and a brilliant piece of colouring, the reproduction of a picture by Stefano Novo, entitled "A Love Token." Messrs. Dudley Hardy, Bernard Partridge, A. Forestier, A. Birkenruth, G. A. Storey, G. P. Jacomb-Hood, and Miss C. E. D. Hammond all contribute happily with their pencils.

New Inventions.

A NEW TONSILLOTOME.

MESSRS. J. WEISS AND SON have taken a great deal of trouble in carrying out my wishes in making this instrument. It suits me and perhaps may suit others. In general form it resembles Mackenzie's instrument, being, like it, strong and rigid, but it has a ring knife like Mathieu's instrument, and not a guillotine or chisel blade like Mackenzie's. The faults, as I deem them, in Mackenzie's tonsillotome are that after it has been placed in position it tends to spring away from the pharyngeal wall when the thumb is moved from the handle to the top of the guillotine to press it down; that the handle is not so shaped as to be firmly held by the fingers alone; and that an assistant is often necessary even with a fairly quiet patient, both hands of the operator being required to place and keep the instrument in position. The metal handle of the tonsillotome which I now submit was cast from a pattern in modelling clay moulded in my own hand. It is easily and securely held by three fingers and the palm. The forefinger rests on the trigger and gives steadiness. The thumb rests on the button at the end of the fixed blade, giving most perfect control over the instrument, and enabling the surgeon to adjust it with great accuracy. This is rendered still more easy if the surgeon places his free hand beneath the patient's chin, the head resting against the back of the chair, so that his second finger rests outside the tonsil. By pressure with the tonsillotome from within, and counter-pressure by the finger from without, the tonsil can be protruded through the ring to the desired extent. Then, without altering the position of the instrument in the least, the forefinger draws the ring-knife home and the tonsil is cut off against the chisel edge of the fixed blade. The instrument is made in the usual three sizes.

Harley-street, W. STANLEY BOYD.

PRESENTATION.—Mr. James H. Skeen, M.B., C.M. Aberd., who has acted for the past four years as senior assistant physician in the Stirling District Asylum, has just been the recipient of a handsome gold hunting watch, chain, and pencil case on the occasion of his leaving the asylum, having been appointed medal superintendent of the Kirklands Asylum, Bothwell.

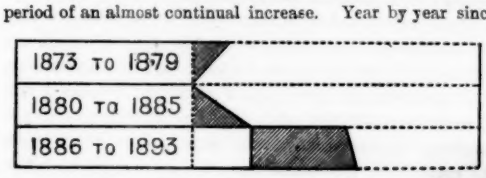
THE SANITARY INSTITUTE.—The preliminary programme of the fourteenth congress, to be held in Liverpool in September, has been issued. The proceedings of the congress will consist of three general addresses and lectures. The three sectional meetings—dealing with (1) Sanitary Science and Preventive Medicine, (2) Engineering and Architecture, and (3) Chemistry, Meteorology, and Geology—will be presided over by E. Klein, M.D., F.R.S.; G. F. Deacon, M.Inst.C.E., and Thomas Stevenson, M.D., F.R.C.P. Five special conferences will be held, to discuss: (1) the Sanitation of the Passenger and Mercantile Marine Service, presided over by Sir W. Bower Forwood, J.P.; (2) Medical Officers of Health, presided over by Charles E. Paget, M.R.C.S., D.P.H.; (3) Municipal and County Engineers, presided over by A. M. Fowler, M.Inst.C.E.; (4) Sanitary Inspectors, presided over by Francis Vacher, F.R.C.S., D.P.H.; and (5) Domestic Hygiene, presided over by the Lady Mayoress of Liverpool. In connexion with the Congress an exhibition of sanitary apparatus and appliances and articles of domestic use and economy will be held. The local arrangements are in the hands of an influential local committee, presided over by the Lord Mayor of Liverpool, with the city engineer, Mr. H. Percy Boulnois, M.Inst.C.E., and the medical officer of health, Dr. E. W. Hope, as honorary secretaries.

THE LANCET.

LONDON: SATURDAY, JUNE 2, 1894.

THE period of the year, which since 1873 has been devoted by the common consent of all the religious classes of the community to the work of making a special and general effort on behalf of the hospitals of London, is again at hand. On June 10th all congregations and worshippers throughout the metropolis will be invited to give of their substance, according to their several ability, in aid of the sick poor. We publish to-day a Special Supplement in which we set forth the pleas to be urged upon the charitably inclined to induce them to contribute liberally in support of our hospitals—that vast scheme for ameliorating the condition of the suffering poor. Our object in undertaking a work of this nature is to show to the public the imminent and urgent necessity for these institutions, and thus stimulate the public conscience to a performance of a duty which undoubtedly belongs to it. This would be a task impossible to accomplish without coöperation, and it is with gratitude that we acknowledge the assistance received, not by any means for the first time, from those engaged in the work of the ministry. With their help we have been enabled to distribute gratuitously to the various places of worship in London, and in this way to the worshippers, 125,000 copies of an abstract of the Supplement contained in our present issue.

The survey of the work of the metropolitan hospitals is presented in our Supplement in graphic form—a form which shows clearly the amounts received year by year in the shape of offertories and also by way of donations. A glance at the diagram in the Supplement, which represents the progress of this Fund since the time of its beginning in London, will make clear to the observer that the life-history of the Fund may be divided into three periods. The first, a period of six years, shows a constant and steady decline both in offertories and also in donations; the second represents a period of steady rise for seven years (1879 to 1885), when the Funds increased from £26,000 to £34,000; while a glance at the last eight years will show a stable period of an almost continual increase. Year by year since



the publication of the first Hospital Supplement of THE LANCET, in the year 1886, there has been a continued augmentation of the money subscribed to the Hospital Sunday Fund by way of offertory. Not less striking is the large increase of donations from that year up to the present time. This fact is reduced to ocular demonstration in comparing the various years represented on the chart.

The cause of this marked development is difficult to fix accurately: fluctuations of trade prosperity, the popularity of other philanthropic agencies, or the periods of emotion which agitate communities, have, during the last twenty-one years, had ample opportunity to act as disturbing factors upon the progress of the Fund, and no doubt account in some instances for the unusual variations which our chart represents. But it is a striking circumstance that never since it has been our pleasure and privilege to help forward this noble cause by issuing these Supplements have the funds on any single occasion receded to the level of the period which has just been described as the "period of steady rise." The rise since 1886 was very marked, and has been more or less steadily maintained. And although it may be that other factors have been at work during the last eight years which did not prevail during the first thirteen years of the Fund, so striking a picture appears to be due to something more than a mere coincidence, and the presumption that our work has not been barren of tangible results in the direction in which they are most to be desired is cause for gratification on our part and encouragement for fresh efforts in the future.

Sympathy is a matter of little moment unless it be accompanied by action and assumes a practical turn. The sick man looks for a sympathy which is practical and computes its reality by the measure of the ability of the sympathiser to assist. A member of our profession once heard a rich man condoling with a poor patient. Putting a sovereign into the sick person's hand, the medical practitioner said to the man of substance, "I sympathise thus much with the patient; let me see the extent of your sympathy." Practical sympathy is nowhere more required than on behalf of the work of our great hospitals in London. Founded as they were upon the self-denial and philanthropic efforts of the noblest men of their day, the practical element has been the predominant one in ministering towards the relief of the sick poor. Yet no one can read the present Hospital Sunday Supplement without being convinced of the absolute inadequacy of this relief. Is it not a reproach to us that the conditions for assisting the sick poor in London at the end of this nineteenth century should be but little better than they were in the sixteenth?

What is the extent to which this practical feeling is carried among the religious communities in London? Last year the total collected amounted to very little more than £39,000, a sum equal to not much more than a penny per head of the population in London. The practical sympathy of all the religious denominations in London on behalf of the noblest institutions in the world does not produce more in a year than a sale of old china, pictures, or furniture does in one day. Contrasted with the income of the City of London it does not amount to one-sixteenth part of a penny per head. Surely the influence, the persuasion, the eloquence of all the pastors and teachers in London should, if properly directed, produce more abundant results. And therefore we are glad to notice the interest taken by many influential preachers in the scheme. We published last week a letter issued by Dr. ADLER to all congregations under his charge, impressing upon them the importance of contributing largely to the Fund. The BISHOP OF LONDON, in a letter which we publish to-day, emphasises our appeal. His words will bear the repetition

we give them. He says, "When we look at our own past history, and especially at the provisions formerly made for treating the sick poor, it seems as if while science had steadily advanced charity had waxed cold. It is painful to think that, whereas 200 years ago the hospitals in London could take in one sick person out of every 133 residents, the proportion is now one out of every 660. Disease has lessened, average life is longer, but men's hearts are sadly colder, and we are put to shame by our own forefathers."

There are in London 2000 hospital beds without occupants—not, alas, for dearth of patients, for the exigencies of civilisation are constantly bringing forward new supplies of these, as a glance at the tables published in our present Supplement will fully show. Unfortunately, it is not possible for the tables to show the number of patients applying for relief who cannot receive it, or whose admission to hospital is delayed. Neither do the tables throw light upon the number of patients who are prematurely sent from the hospitals back to their sad homes in order to find room for fresh cases of a more urgent nature. What a pitiable condition of things would be revealed if statistics could be brought to bear upon this aspect of the hospital question.

The Hospital Sunday Fund Committee, knowing well the requirements of hospital work in London, estimate the requirements of the Fund at the modest figure of £100,000. Upon no occasion during the last twenty-one years has the half of that sum been handed to its treasurer, and it appears manifest that this deplorable result is due in a very large degree to the want of organised concerted action on the part of those who undertake to plead to the people the cause of the sick poor in hospitals. At present the only means in existence for effecting such harmonious action is supplied by our annual appeal to the individuals who compose the congregations in London, and it is our sincerest wish that this appeal may be successful in bringing forth this year, if not the sum specified by the Hospital Sunday Fund Committee, at all events an offertory far exceeding any which has hitherto been given.

THE session of the General Medical Council terminated on Monday, having lasted six days. Though this is one day more than is usual for the Council to sit, it is not long for the business that had to be got through. The chairman of the Business Committee, Mr. WHEELHOUSE, estimated on the opening day that the business would require a sitting of eight or ten days. This despatch is due, doubtless, to a growing sense of the value of the time of the members and of the costliness of time to the Council. This feeling is so strong that there is perhaps some danger of undue haste. The President, as we said last week, goes so quickly to the essence of questions that he may be apt to forget that other members of the Council have not either the same facilities for acquiring information or the same power of rapid judgment that he displays. This was very apparent on one occasion last week, when Dr. MCVAIL had a motion on the paper referring to the Executive Committee to formulate standing orders for the regulation of procedure when a person removed for infamous conduct seeks to be restored to the Register. The President suggested that he should not speak to the resolution, as it was so obviously proper. This is perhaps carrying despatch a little too far. So also in the personal questions which arise in connexion with charges of covering &c. there is a disposition to restrict inquiry which, within limits, is right enough; but there is another side to the question. It is a very serious duty of the Council to have to remove any practitioner's name from the Register. And it is well to try to get at the bottom of these unsatisfactory conditions of practice which so often explain the painful position into which such a practitioner is brought—sometimes without any clear idea on his part that he is doing anything wrong. Two or three of the seven practitioners whose names were ordered to be removed by the Council at its sitting protested that they knew nothing of the very proper Regulations of the Council against covering. Yet the Council showed a reluctance to spend a few pounds a year in advertising these regulations, the breach of which lands practitioners in the loss of professional status and privilege. It is true kindness and a most legitimate use of the funds of the Council to elucidate all that leads to an understanding of these cases, and to publish the ethical rules which the Council has formulated on the subject.

Another very serious subject with which the Council had to deal was the Report by the Examination Committee on the Final Examinations of the Conjoint Board of the Royal College of Surgeons and the Apothecaries' Hall in Ireland. Our readers are aware that the reports of the Visitor and Inspector of these examinations both showed an unsatisfactory state of affairs. The Council had besides to consider a report by its Examination Committee on the same subject, or rather on the same examinations, containing charges of great laxity, both in regard to the examinations and the evidence of study required from candidates. Complaints made at the last session of the Council that the Conjoint Board in question almost ostentatiously proclaimed that it needed no education in mental disease or in vaccination, &c., had been so far met by confessions of sin and rectification of the curriculum. But further inspection of the examinations showed a very low standard of knowledge on the part of candidates, and the memorial of the Royal College of Physicians of Ireland set forth that very great irregularities had been allowed, that in some cases examinations in physiology were omitted altogether, and that in others the partial examinations of other bodies were accepted as complete ones; that a candidate rejected three times by the Apothecaries' Society of London was accepted without having attended any lectures in midwifery as required by the curriculum. The Examination Committee were much impressed with this state of matters, and were not conciliated by promises of amendment and by explanations that tended to concentrate the blame upon the secretary rather than on the Board itself. The committee, in the first instance, suggested that the College of Surgeons should be advised to sever its connexion with the Apothecaries' Hall; but this course would not have been according to Act of Parliament, nor did it take into account, as several members of the Council pointed out, the fact that the College of Surgeons was as much to blame in the matter as the Apothecaries' Hall.

The committee in the end, through its chairman (Sir DYCE

DUCKWORTH), proposed and strongly urged the Council to proceed at once to report the examination to the Privy Council as insufficient to guarantee competence. The Council, indeed, was rather drawn into a position in which such a report to the Privy Council was the logical conclusion. It agreed to the proposition that the standard of efficiency required by the Board was insufficient; but it declined at the present stage, and without giving the Board another chance, to report to the Privy Council. And doubtless it was well advised in doing so, notwithstanding the forcible speeches of Dr. ATTHILL and Sir DYCE DUCKWORTH. In spite of the fact that Dr. ATTHILL'S speech was backed by a memorial from his College, four of the Fellows of his College voted with the majority of the Council in giving the Conjoint Board of Surgeons and Apothecaries yet one more chance of doing its duty. The majority, while agreeing entirely that the Board had let down the standard of education and examination, were impressed with the responsibility of the next step and resolved at least to postpone it; for it involves two bodies and not one, and if the Hall were disestablished it would confer on the two conjoint Colleges with their costly diploma a monopoly of the work. In all the thirty-five years of the Council's existence such an extreme step had not been taken. And the recent experience of the Council had taught it some wisdom as to hastily initiating proceedings that might involve fine legal questions and legal costs that would be characterised by another word than "fine." We give Dr. ATTHILL full credit for the highest motives in delivering his dignified speech against the Conjoint Board, which it is obvious is not to be feared as a rival to the Board of which his College is one partner; but still he was not an entirely dispassionate critic, and, as we have said, he was not supported by his own Fellows. He has, nevertheless, done good, and he has brought within a measurable distance the extinction of the faulty board if it does not mend its ways.

For the particulars of the disciplinary cases we must refer our readers to our report of the proceedings. It is simply amazing that practitioners should be found year after year holding the most questionable relations with unqualified practitioners. In one case bills were sent out in the joint name of the practitioner and the unqualified person whom he covered. But there is every variety of way in which an unqualified person may be so used by a registered practitioner as to convey to patients the notion that he is qualified, and the variety is illustrated in the cases of this year. The penal action of the Council, however, was not confined to cases of covering. It was applied to cases of audacious, or pretentious, or indecent advertisement, of such a flagrant character that the Council would have been deemed unworthy of its function had it not rid the profession of those whom it found guilty. We must postpone consideration of other subjects of less interest to another occasion. The Council has asked to have the judgments of the courts in matters affecting itself and its duties put into a convenient form. It is gradually rising to a perception of its great powers. It may be hoped that in time these powers will be still further increased in the interests alike of the public and the profession.

READERS of DARWIN'S work on "The Expression of the Emotions" will not easily forget the delightful way in which the great naturalist utilised his opportunities for observing children in his own domestic circle. Facts and incidents which a more superficial analysis would have regarded as only the trivialities of the nursery were found to be full of meaning and to suggest or illustrate some of the most profound truths of science. New light on old problems was found to arise from a most unlikely quarter, and the scientific study of the child was placed upon a solid and enduring foundation. In a recent number of the *Forum* Mr. OSCAR CHRISMAN, of the Clark University of the United States, approaches the same subject from a different point of view and pleads for a special department of science devoted to the study of the child, to which he proposes to appropriate the term "paidology." Mr. CHRISMAN writes from the point of view of the psychologist and the teacher rather than that of the biologist and pleads with force and ingenuity for a more careful observation and more sympathetic comprehension of the child nature, as such, than has certainly been customary hitherto. "How much do we know," he asks, "in regard to the foundation causes that throw so many boys and girls out of schools and out of our homes to become outcasts from society? Can it be possible that there is some little physical impediment that causes all this, as an adenoid growth or wax in the ears? May it be true that the poor child whom we have been abusing in school or at home is just the least bit feeble-minded and so lacks the will-power to obey our commands, however much he may desire to obey?" This is not altogether convincing. It is not quite clear that such cases would not be much safer in the hands of the aural surgeon or the alienist than in those of a brand-new specialist, who could hardly combine such functions with those of the teacher and the psychologist. Mr. CHRISMAN'S arguments are valid to the extent of showing the importance of taking account of the physical and psychical fitness or unfitness of a child for education; but this will not be contested by any one, nor has it often been entirely ignored. The point rather is, On whom lies the responsibility for inquiring into these things? The teacher too readily concludes that the imparting of knowledge is his sole function. Mothers and fathers are too often ignorant, preoccupied, or careless. Hence many points of great importance to the child are overlooked until great errors are committed and great mischief is done. Without attempting to create a new sort of hybrid specialist—half physician, half pedagogue—we should view with favour the diffusion of knowledge regarding the peculiarities of physical, mental, and moral development in the child, and the practical deductions which a clear apprehension of such facts would suggest. As Professor PREYER (quoted by Mr. CHRISMAN) remarks, "the observation of mental development in the earliest years naturally falls to the mother more than to any other person; but in order to initiate mothers into so complicated a science as that of psychogenesis the results already attained in it must be presented to them in a form as easy of assimilation as possible. Other persons also—teachers, both male and female, fathers, elder brothers and sisters—are to be induced to consider the importance of the facts in the field which has been lying open for hundreds of years, but has been little trodden and is, therefore, a new field." Mothers are commonly very observant of the physical infirmities of their children and are seldom slow in seeking the aid of a

physician. That they too often ignore many most important psychical phenomena is probably the result less of carelessness than of ignorance. Such things are either a mystery to the average mother, or, from being constantly noticed, come to be regarded as trivial and commonplace.

Mr. CHRISMAN courageously develops his project and indicates to us what he regards as the proper scope and content of his proposed new science of "paidology." "The subject matter of paidology must for the most part come from the work that has been done upon the child by men in other departments. Anthropology and folk-lore will furnish quite an important part, as games, songs, counting-out rhymes, secret languages, and myths in regard to the child. Anthropometry will give weights, growths, measurements; pathology will give a most interesting side, for diseases of children will form a great chapter in this study; physiology will add its quota, as will also neurology; psychology will furnish quite a good deal of material.....pedagogy will give considerable material." Again we have our doubts about the possibility or advantage of thus isolating the ideal "child." We might fairly ask Mr. CHRISMAN how he is going to define a "child," what limitations of age he proposes, and how he expects to draw a hard-and-fast line between the infant, child, adolescent, and adult with regard to some of the departments of science enumerated above. Nevertheless, we by no means deny a certain validity to his contentions. It has been found convenient and advantageous to separate the diseases of children from those of the adult, and, though a perfectly correct *fundamentum divisionis* cannot be formulated, the distinction has been found to be one of real practical utility. We can imagine much advantage from isolating the psychological phenomena of childhood and adolescence, about which there are much pretended knowledge and real ignorance; but the more we reflect on Mr. CHRISMAN'S proposals the more are we inclined to suspect that his suggested new science of paidology consists of two divisions not readily to be combined—viz., a physiological and medical division, on the one hand, and a psychological and ethical division, on the other. There is much to be said for leaving the former to the physician and the latter to the teacher.

While demurring to Mr. CHRISMAN'S main proposal, we are heartily in accord with him in urging a more patient and scientific study of child phenomena in general. There is no room for doubt that this is a department in which the most ruinous errors are being daily committed. Parents and teachers constantly judge the young by an adult standard and in consequence commit the most grievous mistakes. In these days, when education is becoming universal and its pressure is constantly increasing, it is certainly not inopportune to urge the study of the subject of all these scholastic experiments, lest haply he become their victim. We should approach the subject in the spirit of simple inquiry and as far as possible divest our minds of the numerous prejudices that surround this important but somewhat neglected field of knowledge.

WE have now reached a point in the Paris Convention at which the pilgrim vessels are passing up the Red Sea. Hitherto all pilgrims were obliged to disembark at the island of Camaran and remain there professedly under observation for a period of at least ten days, even when no suspicious illness whatever had taken place on board. As a matter of fact, Camaran served the purpose of securing sanitary dues in return for exposure of the pilgrims to the most insanitary circumstances conceivable, for exacting ruinous prices for the most miserable food-supplies, and, worst of all, for exposing the pilgrims to the risk of disease, even of cholera itself, and when one pilgrim had fallen ill excuse was made for retaining them all until fifteen days had elapsed since the occurrence of the last case of cholera. We understand that both Dr. THORNE THORNE and Surgeon-General CUNINGHAM protested in the strongest terms upon the present misuse and gross administration of this so-called sanitary station.

And, notwithstanding the feeble protests of the Turkish delegation, a code of regulations was introduced which classified pilgrim vessels, after the manner of the Dresden Convention, according as those on board were healthy, *suspect*, or infected. It is true that complete immunity from detention of a cargo of healthy pilgrims was not obtained, but it is laid down that no pilgrims arriving on a so-called healthy vessel, and amongst whom no choleraic disease occurs, are to be detained except for purposes of cleansing and disinfection, and that such detention shall under no circumstances exceed forty-eight hours. Suspected vessels—namely, those on which some case of cholera has occurred during the voyage, but not within seven days of arrival at Camaran—are hardly dealt with more stringently.

Where vessels are actually infected, or have had cholera on board within seven days, the five days' detention authorised under the Venice and the Dresden Conventions will be insisted on. A large number of improvements are demanded under the Convention as regards Camaran itself. Thus, the island is to be cleared of the steadily increasing number of inhabitants who live by the aid of exactions imposed on the pilgrims, and everything relating to food-supplies, wholesome and sufficient water, hut accommodation for the pilgrims, and sanitary requisites, comes under definite regulation. It remains to be seen how far the body to whom is given the power of carrying out the terms of the Convention will insist on receiving for use a sufficient amount of the sanitary taxes imposed on the pilgrims in order to enable them to fulfil the conditions prescribed. For some reason or other the Superior Sanitary Council of Constantinople, which has for thirteen years had the main responsibility for Camaran, had only succeeded last year in leaving it all but a desert so far as proper organisation was concerned. It was, indeed, a source of the greatest misery and discomfort to the pilgrims, and, as one French authority has aptly put it, the place had become a "foyer cholérique" instead of a sanitary station. The Turk, after all, has the control of the purse-strings, and the civilised nations of the world should be firm in insisting that a reasonable sum of that which is levied from the pilgrims themselves should be utilised for protecting the unfortunate contributors from unnecessary privation, disease, and death.

It is in one sense unfortunate that the Convention contains no reference to the sanitary measures that ought to be adopted in the port towns of the Hedjaz and in the Holy Places themselves. We believe that much was said on this

point, and that the British delegation insisted that herein lay the only reasonable prospect of preventing cholera in connexion with the Mecca pilgrimage in the more immediate future. But international rules and courtesy probably prevented the assembled delegates from attempting to order the administration, sanitary or other, of towns and cities which admittedly form part of the Turkish Empire. And the Conference had consequently to be satisfied with promises, such as were not heard for the first time, to the effect that the SULTAN would forthwith spend large sums of money in the directions needed.

Dealing as we are essentially with the question of the Mecca pilgrimage, we do not intend to discuss on this occasion that part of the Convention which has to do with the maritime control of the Persian Gulf; especially as Great Britain has for the time being declined to accede to this portion of the treaty signed in Paris, and it only remains for us, in this somewhat superficial view of the Convention, to draw attention to an important clause relating to the execution and supervision of the instrument. The Superior Council of Constantinople has certainly lacked either the means or the will to carry out its sanitary functions in a manner that in any way corresponds to modern notions of what is either reasonable or useful for the prevention of cholera; and it is no secret that this is largely due to the excess of the Levantine element in its constitution. It is, therefore, laid down in the Convention that its execution is to be carried out by a committee only of that Council; and in order to ensure that the action taken by that committee shall be in accordance with modern traditions it is determined that the new controlling body shall consist only of the representatives on the Council of such Powers as have, or may hereafter, become parties to the three Conventions signed at Venice, Dresden, and Paris. The Turkish Government can here again act as obstructives, but the insistence of Europe, which has more than once been exercised upon Turkey when questions affecting a wider range than those which are limited to purely Ottoman considerations have been in view, should again be exercised in demanding strict adhesion to the decrees of the clause to which we have referred, and which is vital to the success of the Convention as a whole and to the prevention of cholera in connexion with the Mecca pilgrimage.

Annotations.

"Ne quid nimis."

THE PROPOSED UNIVERSITY FOR LONDON.

ALTHOUGH meetings of many of the various bodies interested in the scheme for the proposed University for London, as laid down by the Gresham Commissioners, have been held, and a general approval of the recommendations has been passed, and in some instances forwarded to the Home Secretary, it is gradually becoming more and more evident that the Government will not appoint a Statutory Commission during the present session. The practical unanimity of the institutions affected by the proposals has not yet been obtained, and without this unanimity the Government would not be ready to take action, the present condition of public business being unfavourable for the introduction of any Bill likely to meet with decided opposition in any quarter. It is well-nigh universally agreed that the most important parts of the scheme, especially those which have reference to its keystone, the Academic Council, require considerable modifications, while it is apparent that such modifications would change the whole character of a large number of the clauses. It is not too much to say that a general approval, which at the same time implies a reconstruction of a scheme at the hands of a Statutory Commission, cannot be very encouraging to the people who are urging its adoption. A point of some considerable difficulty is to know how far a statutory commission will feel itself bound to keep within the lines laid down in the report of the Gresham Commissioners. If the statutory commission can, or will, only modify slight details of working, it would be extremely unwise for many of the bodies to urge its appointment and find themselves afterwards greatly fettered by its decisions. If, on the other hand, the statutory commission should be endowed with powers to order alterations, which in many cases would practically be enforcing a new scheme, it is of great importance that the various institutions should know that such drastic and revolutionary powers have been granted, so that they, on their side, may lay down their own limitations—may, to put it baldly, decide exactly what it is they want. It is quite clear that the teachers of arts and sciences in London desire one thing—viz, the formation of a great central University in London for research and teaching, similar to the Universities of Berlin or Strassbourg; and that the majority of the London teachers of medicine desire quite another thing—viz, a local university by which their students may be relieved from having to pass an honour's examination in order to obtain a pass degree. We are entirely in accord with the teachers of medicine. It is time, and over time, for the London student to be put on an equality with the students in the provincial and Scotch medical schools. The Commissioners have most unwisely endeavoured to graft the work and prestige of an Imperial examining board on a new body, and they do not seem to be quite clear whether this new body should be modelled on the Scotch or the German type. As a result they have produced an *olla podrida*. It is not to be a university for higher research; it is not to be a teaching university; it is not to be a simple and uniform examining board for the empire; it is to be an amalgam of all three. And in this amalgam the only ingredient working for good to the London medical student is that to some extent his examinations will not overlap each other as they do at present. A new Teaching University for London must offer the London medical student some more substantial and tangible benefit.

THE BIRTHDAY HONOURS.

SCIENCE, the arts, and the learned professions are well represented in the list of honours issued on the occasion of the seventy-fifth anniversary of the birth of Her Majesty. In the medical profession no new baronetcy has been created; but to the list of medical knights there have been added the names of Mr. F. Seymour Haden, F.R.C.S., President of the Royal Society of Painter-Etchers; Mr. J. C. Bucknill, M.D., F.R.C.P., F.R.S.; Mr. T. Grainger Stewart, M.D., F.R.C.P. Edin., Physician in Ordinary to the Queen in Scotland; Dr. Russell, the Lord Provost of Edinburgh; and the Hon. Arthur Renwick, M.D. Of these Sir Thomas Grainger Stewart's honour is the only one that can be supposed to be purely medical in its origin, and we need say no more in its connexion than hereby express our hearty congratulations to a most worthy recipient of Her Majesty's favour. The Hon. Arthur Renwick, M.D., has done good service to the State as a member of the Legislative Council of New South Wales and a former Minister of Public Instruction in that colony. Sir Francis Seymour Haden's honour is mixed in its origin; perhaps it is no

derogation to his surgical renown to say that he owes it chiefly to his position in the world of art as President of the Society of Painter-Etchers. Sir John Charles Bucknill, whose knighthood we referred to last week, was one of the originators of the Volunteer movement, and he has done admirable work in psychological medicine and was at one time a Lord Chancellor's visitor in lunacy. The Right Hon. J. A. Russell, J.P., M.B., C.M. Edin., is Lord Provost of Edinburgh and Inspector of Anatomy for Scotland. In the military and naval services Surgeon-General Sir James Mouat, V.C., C.B., late Army Medical Department, honorary surgeon to the Queen, is promoted to be a Knight Commander of the Order of the Bath; and Fleet Surgeon William Rogerson White will receive a Companionship of the same Order in recognition of his services in the recent operations against Fodey Silah in Combo, on the Gambia. Surgeon Walter Bowden, R.N., is appointed to the Distinguished Service Order for his services on the same occasion. Dr. Robert Grieve, Surgeon-General of the colony of British Guiana, receives the order of Companion of St. Michael and St. George. Deputy-Surgeon-General and Honorary Surgeon-General W. George Nicholas Manley, V.C., retired pay, late Army Medical Department, receives a Companionship of the Bath.

THE LANCET SPECIAL ANALYTICAL SANITARY COMMISSION ON GASEOUS FUEL.

WE continue to receive evidence of the widespread interest which was created by the publication of the report of our Analytical Sanitary Commission on Gas Fires which appeared in THE LANCET of Nov. 25th, 1893. On the whole we have reason to be satisfied with the manner in which the report was received. Criticisms have flowed in freely even from America and Australia, but it was chiefly in the technical press at home that the report was discussed at length and in minute detail. That imperfection would creep into it we were willing to expect, and we took an early opportunity to thank our kindly critics who promptly explained what we ought to have done and what we ought not to have done. We replied at some length to the batch of critical correspondence we received in an article that was published in THE LANCET of Dec. 9th, 1893, and our answers then, which escaped the notice of subsequent writers both in and out of the press, were such as anticipated many criticisms which were published in various papers at a later date. In the February number of the *Gentleman's Magazine*, for example, there appeared an able and lengthy article by Mr. L. C. D'Oyle, with whose observations on many points we quite concur; but he devotes the bulk of his remarks to what he considers were important experimental omissions, which, after some thought, as we explained in a reply published two weeks after the issue of the report,[1] we were led purposely to make. We do not, however, fail to perceive that the article is one full of kindly appreciation of the labour which the inquiry involved. Thus the writer regards the report as by "far the most important and authoritative contribution to this question that has been published up to the present time," and later he expresses himself even more strongly when he informs his readers that THE LANCET has investigated the question of gaseous fuel and has published the results "in a most instructive, exhaustive, and downright good special report." We are indebted, too, to the *Journal of Gas Lighting* for various critical contributions which have appeared now and again in its columns, some more or less severe, but couched for the most part in terms satisfactory to ourselves and to our Commissioners. We may be pardoned, however, if we express even greater satisfaction at the tribute which the President (Mr. Alfred Colson) of the Institution of Gas Engineers was pleased to pay in his presidential address to the members of the institution at the general meeting on May 9th. "It must be admitted," he said (we quote from the report of the proceedings contained in the *Journal of Gas Lighting*, May 15th), "that in spite of some imperfections no more comprehensive investigation of the subject has ever been published, and that it reflects the highest credit upon those engaged in it. It is a report that should be studied by every gas engineer and manager in the country; and it is gratifying to know," he added, "that there is a prospect that the scope of the inquiry may be extended at some future time; but, before this is done, I would suggest that if THE LANCET were first to consult with the Council of this Institution it could obtain hints that would be of assistance in any further investigation into the value and merits of the different kinds of gas appliances." We need hardly add that when the opportunity occurs we shall most cordially avail ourselves of this offer of the valuable experience and knowledge of which we feel a body like the Institute of Gas Engineers must be in possession. It is only by coöperation on these lines that results of any real practical value on the subject at issue can be obtained, and our work in endeavouring to place on record the results of a reliable and trustworthy investigation in order that we may possibly further the interests and welfare of the community at large will thus be greatly facilitated.

[1] Vide THE LANCET, Dec. 9th, 1893.

SLEEPLESS CYCLING.

ANOTHER of those abnormal feats to which we have more than once drawn public attention has been accomplished. One of the great "record breakers," as they are called in the cycling world, has set all his compeers at defiance by the truly marvellous effort of cycling from the Land's End to John of Groat's in eighty-six hours fifteen minutes—that is, nine hours and forty minutes quicker than the "safety" record. We are informed that he rode the last part of his journey at the rate of sixteen miles an hour, that he experienced little fatigue, and that to all appearances he was not in any way injured by his success; but the most remarkable part of this act is included in the fact—and it must be recognised as a fact which admits of no dispute—that he performed his task without indulging in one moment of sleep. He was three days, fourteen hours, and fifteen minutes without reclining once to rest or ceasing his active movement of propulsion, except for the very briefest moments. There have been periods within our own recollection in which this physiological feat would not have been accepted as possible; and although we are forced to accept it now, for no one can contend against truth even under perverted trials of endurance, we are filled with wonder. We know from the best experimental proofs that the healthy heart will beat 106,000 times in the twenty-four hours, and that the lowest estimate of the work done by this labour is equal to lifting 122 tons one foot; but it has recently been shown that cycling tells severely and specially upon the circulation, and that the number of the strokes of the heart is doubled during such active exercise as that to which this rider subjected himself, so that the lowest estimate we can assume for the work of his heart each day was 212,000 beats, with work done of 244 foot tons; and this maintained for three days and fourteen hours and fifteen minutes was equal to more than 854 foot tons without repose. The experiment, for it must be looked upon physiologically as an experiment, is not without its uses. It surpasses every kind of ordinary experiment in showing what the human heart is capable of performing, and what tension the vessels of the greater and lesser circulation will bear in the young and healthy man. It shows, also, that there remains much that is as yet unexplained in respect to the cause of sleep, suggesting

indeed, that there is something in persistent motion of the blood, sustained by volition of a resolute kind, which prevents the nervous system from passing into that passive or negative state to which the term "sleep" is applied. We might dwell on these points with advantage to physiological inquiry, and we might dwell upon corresponding evidences, such as the over-action of the heart in connexion with the wakefulness of febrile conditions, and the effects of extreme stimulation. The practical lesson we are most called to dwell upon, however, bears on the ultimate influence of extreme exercise on the bodies of these young men who make themselves the victims of self-inflicted injury. The report of a feat such as we have related may suggest that, for the moment, the athlete has sustained no harm, and that all our teaching is so much nervous admonition, or, as it is sometimes designated, "grandmotherly care." We wish it were so. Unfortunately we know that these violent strains bode, in the end, the certainty of premature decrepitude. Towards the goal of death the best heart can only perform a certain measure of work, and whether that be done by rapid or slow process determines the length of days in which it is done. Theoretically, therefore, it is the fate of these young competitors, who otherwise might be destined for a long and active existence, to succumb or break down long before the sun of their life has reached its full meridian; and practically this, so far, has been the fate of all who have endeavoured, under the applause of their unthinking comrades, to do what nature has not constructed them for doing without risk and without ultimately proclaiming to them in a voice even stronger than theirs that she, after all, is the arbitress of their destinies.

CHILD-TRAFFIC IN ITALY.

IN spite of Government interference and amateur societies, British and Italian, this disgraceful traffic shows little tendency to decline. In Italy attempts have been made to rouse public sympathy in behalf of the poor children condemned to a vagabond life under mercenary showmen in foreign capitals, but, as usual, the response has been of the feeblest. And yet these attempts have been wanting neither in earnestness nor in power of appeal. A few months ago a thrill of horror and shame was sent through the peninsula by the pamphlet of the Marchese R. Paolucci di Calboli entitled "I Girovaghi Italiani in Inghilterra ed i Suonatori Ambulanti" (Vagabond Italians and Itinerant Musicians in England), in which the tragic fate of so many boys and girls, mostly from Southern Italy, was touchingly set forth, and an impressive remonstrance was directed to the Legislatures of both kingdoms for the suppression of the nefarious traffic that led up to it. The public, however, to which it was originally addressed, with characteristic supineness took no practical measures, and now a second and still more moving appeal is made to its *amour propre* if not to its sense of duty. This comes from the pen of a distinguished Sicilian statistician, Professor Sitta, and from it we learn that about 20,000 Italians reside in England, of whom the vast majority are not robust, independent breadwinners, but children scarcely emerged from infancy, hired from their parents (or, more truly, sold by them) to pirouette and gambol through the European cities to the sound of tambourine or hurdy-gurdy, and by the compassion they excite to draw from the thoughtless almsgiver the doles from which their hard taskmasters earn a profitable livelihood. Professor Sitta's remarks on the composition of the Italian population in England are instructive as well as interesting. The foreign labourer or artisan is not encouraged to pursue his *métier* on these shores, and those Italians who are an exception to this rule are few indeed. The *bonâ-fide* immigrants of that nationality are vendors of cheap statuary, ice-cream sellers, cooks, or waiters in third-class restaurants and hotels—a class which goes but a little way to making up the total of 20,000 Italians above mentioned. The overwhelming proportion of these are, as already stated, children not yet in their teens—chosen, indeed, for their extreme or tender youth as much as for their good or interesting looks—and ruthlessly sold by their Neapolitan or Sicilian parents to itinerant musicians who are practically importunate mendicants. Professor Sitta's allusions to the lives led by these little martyrs to parental greed are sufficiently harrowing, but by no means new to the reader familiar with the night-side of London. From these it is more worth our while to pass to the preventive legislation such facts have inspired, and we find, accordingly, that in 1871 the Italian Government put its official veto on the employment of children by strolling performers, musical and other. Still, however, the traffic was continued by contraband means, while the measures taken in England in accord with the Italian Government were equally frustrated by the clever utilisation of "loopholes in the law." The Società di Beneficenza Italiana in London, coöperating with the surveillance maintained by the Scuola Italiana and the auxiliary efforts of the Italian Embassy and the Italian consuls, all were put in motion to suppress or minimise the traffic, but with no radical outcome. Extirpation of the evil must go yet deeper and root up the outgrowth from its originating soil. That soil is Italy itself, where grinding poverty, accompanied by ignorance and neglected education, supplies inducements to child traffic far more powerful than legislative enactment can deal with. Italy, in her southern provinces especially, is still in many ways mediæval, the revelations of Professors Mosso, Lombroso, and Colajanni being too well authenticated to admit of dispute on that point. England can do much, as Professor Sitta quite sufficiently shows; but Italy remains the *fons et origo* of the traffic in its *personnel* and its promoters, and so her reform, like charity in general, must begin at home. To conserve her people in health and vigour, if for no higher object than the efficiency of her military and naval establishments, she must suppress the horrors of her sulphur mines and the white slavery among her child population. Till she does that it is idle to talk of dereliction of duty on the part of foreign Powers.

CLUB PRACTICE AT SOUTHAMPTON: RULES OF PAYMENT.

IT is not to be supposed that we have heard the last of the difficulty of reconciling an adequate medical attendance on members of the working classes with an adequate remuneration of the members of the medical profession. The subject has been revived in two forms—first, at a meeting of the medical profession of Southampton, which was addressed by Sir Dyce Duckworth; and, secondly, in the General Medical Council, in a motion by Mr. Bryant. At Southampton (as we reported last week) Sir Dyce Duckworth delivered a speech, in which he set forth vigorously that a fourth of the population of Southampton was attended medically and surgically in clubs for 4*s.* a year; that these terms did not sufficiently remunerate the medical man, whose education was now more extended and more costly than ever; that though the wages of workmen had risen greatly of late years there had been no corresponding advance in the fees for medical attendance on club members; that many persons took advantage of these low terms who were in a position to pay the ordinary ones; and that the numbers to be attended under so-called medical aid associations were such that the attention given to members was often perfunctory, while the general position of the medical officer in such associations was unsatisfactory and degrading. The result of the meeting at which Sir Dyce Duckworth was present was the

appointment of a committee representing the profession to confer with the representatives of friendly societies and clubs. Happily there are no medical aid associations in Southampton. This second conference took place on May 10th, when the chairman, Dr. Bullar, having no personal interest in clubs or friendly societies, read a statement on behalf of the profession, setting forth with great moderation and fairness the grievances which are so much felt by the profession, which works so hard and on such inadequate terms. The points of grievance were very much the same as those stated in Sir Dyce Duckworth's speech, and the modest demand made was an increase from 4s. to 6s per annum. The representatives of the friendly societies and clubs responded in a vigorous way; but one of them, Mr. J. C. Burrage, while complaining that the medical man had not gone directly to the different courts and lodges, practically admitted the reasonableness of the case of the medical officers. "No doubt the wages of working men," he said, "had gone up some 30 or 40 per cent. in the past 30 years, and it might be that the medical men had a right to more pay, but they had gone the wrong way to work." We do not see this. They have simply met among themselves and agreed to meet the representatives of the friendly societies. The arguments used in defence of the low payments were quite inadequate. The chief one was that a member might not need the services of the medical officer for ten years and so his payment might be sufficient, the fact being that there are few such creditable constitutions and that the very possibility of any remuneration from such low terms turns on the fact that a few practically need no attendance. No account was taken of epidemics and ailing members who need almost constant attendance. It is pleasant to report that the best temper prevailed on both sides, and that on the medical side members spoke as if relying entirely on the reasonableness of their case and the fair judgment of the leaders of the societies. We have already alluded to Mr. Bryant's motion at the General Medical Council asking the Council to express strong disapproval of the conduct of those who accept the appointments of medical aid associations. It is gratifying to see men in the position of Sir Dyce Duckworth and Mr. Bryant interesting themselves so disinterestedly in this question.

THE WATER-SUPPLY OF PENRITH.

THE report which Dr. Bruce Low has recently made to the Local Government Board on this subject reveals a condition of affairs which it is to be hoped the sanitary authority of Penrith will speedily put an end to, not only for the safety of the townsfolk, but also for that of the large body of health-seeking tourists who every summer pass through Penrith on their way to "Lakeland." The water-supply in question is derived from the river Eamont, which takes its rise from Ulleswater, the intake being situated just above the village of Eamont Bridge, some five miles from the lake. From this intake the water is conducted to the pumping station, a distance of some 600 yards, by two sets of glazed earthenware, defectively jointed pipes, along the course of and within a few feet of which are to be found midden privies; while in the village of Eamont Bridge, through which the pipes pass, there are numerous other agencies calculated to pollute the porous gravelly subsoil with organic filth. It is interesting also to note that when the intake is closed water in considerable quantities can still be pumped from the pipes, owing apparently to the suction of the subsoil waters through the defective joints. From the pumping station the river water is pumped, *without storage and without filtration*, to the town of Penrith. In its course from Ulleswater to the intake the river receives, directly or indirectly, the drainage of several villages, mansions, scattered farmhouses, and cottages, as well as the surface washings and drainage of agricultural land manured in some instances by human excrement. In this latter connexion Dr. Low mentions in particular a farm of 300 acres situated about a mile above the Penrith intake, and much of which is near the river, which is, in fact, manured from sludge obtained from the settling tanks of the sewage outfall works of Penrith. The people of this town have, therefore, as Dr. Low points out, been for some time exposed to the danger of having their own excrement washed from this farm into their drinking water during periods of heavy rain and rapid thaw. Such being the conditions under which the water-supply of Penrith is obtained, it is hardly to be wondered at that some 200 of the ratepayers complained to the Local Government Board in regard to it, or that Dr. Robertson, the medical officer of health, should have urged upon the sanitary authority the necessity of at least filtering their water before consumption. Furthermore we learn from Dr. Low's report that in 1891 the town of Penrith, and Stainton, a village in the adjoining rural sanitary district about three miles from Penrith, on a tributary of the Eamont, were invaded by an epidemic of enteric fever; and Mr. T. W. Thompson, one of Dr. Low's colleagues, after visiting the locality and ascertaining the facts of the outbreak, reported that "a theory of specific contamination of the river Eamont, and so of the Penrith water-supply, by an earlier case or cases of enteric fever at Stainton than those notified, would, it seems to me, best fit the facts put before me by the medical officer of health." The Penrith sanitary authority have, as a result of pressure put upon them by the Local Government Board, called in an engineer to advise them, but although he has put before them two apparently simple and by no means costly schemes they seem to think that if the water conduits between the intake and the pumping station are replaced by properly jointed iron pipes, and the service pipes overhauled, all will be well; and they are proposing to apply to the Local Government Board for sanction to borrow £3000 for the works in question. It appears to us that even if these improvements are carried out, and unfiltered and unstored river water still used, that Penrith will nevertheless be living on a sort of powder magazine which may be ignited by a specific poison at any moment, and we shall be much surprised if a loan is granted for any such proceedings.

REFLEX OCULAR NEUROSES.

IN a recent number of the *Philadelphia Medical News* Dr. Weir Mitchell has a contribution on this subject, which has perhaps rather a historical than a practical interest. Living as we do in days in which the ophthalmic surgeon is so constantly called upon to relieve headaches by prescribing appropriate lenses, it is curious to think that Dr. Weir Mitchell remembers the time when such a course as sending a patient with severe headaches to an ophthalmic surgeon would have been scoffed at. Dr. Weir Mitchell's first contribution to medical literature on this subject was made in 1874. In a paper in the *Medical Reporter* of that year he described headaches from eye strain and gave an account of several cases in which treatment by means of glasses had been successful in arresting them. His next important contribution to this subject appeared in 1876 in the *American Journal of the Medical Sciences*, in which certain conclusions were formulated as to headaches and other symptoms of refractive errors. Dr. Weir Mitchell clearly recognises the extreme to which eye strain has been called in as a cause of different neuroses, more especially in America, and it is interesting to have the result of his own experience in regard to the refractive treatment in two conditions—viz., chorea and epilepsy. As to the former, Dr. de Schweinitz examined carefully during two years the numerous choreic children who attended Dr. Weir Mitchell's clinic at the Philadelphia Infirmary for Nervous Diseases. The cases were 100 in number, but no notable result in the way of cure

of chorea was obtained by correction of refractive or other ocular errors in cases in which these were present. As to epilepsy, Dr. Weir Mitchell's experience has been similar, and he calls attention to some of the fallacies to which conclusions in regard to this matter are exposed. Thus, even an obstinate epileptic suddenly placed under new conditions, amid new surroundings, and with an altered diet may, and frequently does, undergo a rapid change for the better. Such a fact is, of course, of the utmost importance when one seeks to determine the usefulness of any particular therapeutic procedure. As regards the efficacy of cutting tendons and correcting errors of refraction in treating epilepsy, Dr. Weir Mitchell's experience is entirely negative, and on this point he shares the views which we have from time to time expressed in our columns. To one statement only in Dr. Weir Mitchell's interesting and philosophical paper would we take exception. His words are: "I suspect that our own oculists are far in advance of the English and most continental surgeons in the care with which they correct defects in refractions." Whether this is meant as a reflection on European ophthalmic surgeons—which we can scarcely believe, although the literal meaning of the words is obvious—or whether it is meant to imply that refractive errors are not sufficiently recognised as a source of trouble on this side of the Atlantic, we venture to think that the statement is not quite correct.

UNITED KINGDOM POLICE SURGEONS' ASSOCIATION.

FOLLOWING the letters and notices which appeared in THE LANCET last year on the subject of medical certifiers of the cause of death, and the suggestion that these belong rather to the office of police surgeons than to that of medical officers of health, an association has been formed on nearly the same lines as the Metropolitan Police Surgeons' Association, but embracing the whole of the United Kingdom. We are informed that already over one hundred police surgeons have joined and that a representative council has been formed. The members include representatives from London, Liverpool, Manchester, Chester, Carlisle, Newcastle-on-Tyne, Bristol, Cardiff, Portsmouth, and Plymouth. At a council meeting held on the 17th inst. under the presidency of Mr. Thomas Bond it was resolved to summon a general meeting of members to be held at Bristol during the meeting of the British Medical Association in that city in August next. The principal objects sought to be attained by the Association are these. 1. The appointment of police surgeons in those towns and counties where at present there are none. 2. The issue to all police surgeons and police authorities of some very important instructions, approved by the Law Officers of the Crown, dealing with the examination of prisoners accused of criminal assaults, &c. These instructions are at present only issued to metropolitan police surgeons, but they have been recognised as of such great importance in serving the treble purpose of safeguarding the liberty of the subject, aiding the course of justice, and preventing innocent persons from suffering unjustly, that they have been embodied in the fourth edition of Taylor's "Principles and Practice of Medical Jurisprudence" by Dr. Thomas Stevenson, the editor. 3. The protection of the interests of police surgeons in the event of medical certifiers being appointed. Another very important point, in which others besides police surgeons are interested, is the effort which it is proposed to make to obtain an increase of the one guinea per diem at present allowed to medical witnesses giving evidence at assizes and sessions held in towns and cities distant from their residences. As is well known, the present remuneration leaves medical witnesses literally out of pocket instead of remunerating them at all. We are informed that it is proposed, subject to the approval of the members meeting at Bristol, to ask the Home Secretary to receive a deputation to lay these points before him. The honorary secretaries, to whom communications in reference to the Association should be addressed, are Mr. Fred. W. Lowndes, Liverpool, and Mr. H. Culliford Hopkins, Bath.

THE LEWISHAM LUNACY CASE.

IT must be gratifying to all medical men and, we may add, to all fair-minded persons, to note the remarks of Mr. Justice Wills in the High Court of Justice in regard to the defendants in the above case. In dismissing the action brought against Messrs. Duke and Beaumont he credits them with "humanity and deliberation and anything but hasty or impatient consideration of the case." The ever-increasing number of instances in which the attempt to defame medical men ends in an opposite result will surely have the effect of deterring the assailants of the profession. We congratulate Messrs. Duke and Beaumont on the result in their case. It is not enough, indeed, to reconcile conscientious and dutiful men to an ordeal of blame and reflection and expense from which they should have been saved, and from which the recent changes in the Lunacy Acts were meant to save them; but it will serve as excellent material on which to base a demand for more effective protection to medical men in the discharge of the painful and responsible duties imposed on them by these Acts.

THE DIFFUSION OF SMALL-POX.

LAST week witnessed another of those rises in the number of new cases of small-pox in London which we are now becoming accustomed to look for at intervals in the metropolis. The fresh attacks were no less than 61, with 7 deaths; and the admissions in the week were 69, against 64, 71, and 52 in the three preceding weeks. At West Ham the number fell somewhat, 17 cases being recorded, and 2 deaths. The total number of patients under treatment at the close of the week in the Metropolitan Asylums Board institutions was 222, and at Highgate Small-pox Hospital 14, making an aggregate of 236, against 191, 210, and 219 in the three weeks preceding. In Essex the disease has attained such proportions that it has been deemed advisable to cancel the order calling out some of the militia regiments. Districts bordering on the county have also been attacked during recent weeks. At Bristol the epidemic seems to have been stamped out, there having been no new case for a fortnight, and the total of attacks having numbered 327, a total identical with that of the preceding epidemic. There were two cases at Walsall last week, and several towns in the Midlands were invaded, including Aston Manor, Smethwick, West Bromwich, and Wolverhampton, where, with a view of being ready in case of an emergency arising, the corporation have accepted a tender for the erection of a temporary hospital for thirteen beds. At Willenhall the cases up to the end of last week, during which over 30 occurred, are stated to have reached the number of 130, and up to the middle of this week 6 deaths had occurred. Efforts to secure the vaccination of the residents are being largely and encouragingly seconded. A wooden hospital is in contemplation. An iron and brick hospital is also to be erected by the Hinckley local board, at a cost of something over £500. It is hoped to be ready for patients by the middle of June. Much good work is meanwhile being accomplished in attending to the wants of destitute cases. The disease maintains a steady course at Birmingham, where 44 new attacks were heard of last week, and 2 deaths were registered. There were 5 cases recorded at Manchester, and 6 at Liverpool and at Bradford. Generally speaking, small-pox is at the present time grouped in two centres—namely, London and its suburban districts, and in the midland counties. But at

least one serious outbreak is in progress across the borders, to wit, at Leith, where affairs are looking critical, not alone on account of the cases numerously and increasingly coming to light, but also because of the small space now available in the existing hospitals. Sixty fresh patients were learned of last week alone, and orders have been given to the borough surveyor to get extra accommodation erected as quickly as possible. This is to take the form of a wooden structure on the Leith Links, where a wooden hospital already exists, for convalescents.

DEATH FROM HÆMORRHAGE AFTER TOOTH EXTRACTION.

IN the *Annals of Surgery* Dr. Elliott Bates records a case which is interesting as showing the dangers to which patients suffering from hæmophilia are exposed even under slight operations. The patient was a man aged twenty-five years, who had been delicate from childhood, suffering at intervals from painful joints and digestive troubles. On one occasion in childhood a slight accident resulted in profuse hæmorrhage, and twice he nearly lost his life on account of hæmorrhage after extraction of a tooth. He determined, however, to risk it a third time. Gas was administered and the tooth removed. Hæmorrhage followed, but diminished steadily after the cavity had been packed. It returned, however, during the night, and in the morning the patient was in a state of collapse from loss of blood, the face and lips being pale and cold, while he also had tinnitus aurium and dimmed vision. In spite of treatment by hypodermic injections of whisky, strychnia, and saline solution, the patient continued to lose blood and gradually became weaker, finally succumbing seventy-six hours after the extraction of the tooth. There was no trace of any similar condition to be discovered among the patient's relations. On the maternal side there was a phthisical taint, and on the father's a neurotic tendency.

SYMPHYSIOTOMY AT THE INTERNATIONAL MEDICAL CONGRESS.

THE *Annales de Gynécologie* for April contain an interesting paper read in the section of Obstetrics and Gynæcology at the recent International Medical Congress by Professor Morisani. The limits within which he considers the operation indicated are, as regards the lower limit, a conjugate diameter not less than 67 mm. As regards the upper limit it is generally given as 85 mm., but he considers that even with a conjugate of 95 mm. it may be indicated if the head of the fœtus cannot be made to engage in the brim by suitable means. The biparietal diameter may be taken as about 95 mm., though this may be reduced by moulding to about 90 mm. The total gain in the direction of the conjugate of the brim that may be obtained by symphysiotomy he gives as about 22 mm. Professor Morisani incidentally expresses his opinion on version in cases where the pelvis is moderately contracted. He regards it with little favour, on the ground that even in normal pelves delivery by version is attended by a considerable fœtal mortality, but that in narrow pelves this mortality becomes enormous, and, according to Zweifel, no less than 29 per cent. To return to symphysiotomy, when the fœtus is dead or its vitality gravely compromised, he considers the operation unjustifiable. In connexion with this point it should not be forgotten how difficult it sometimes is to be certain that the fœtus is dead. In 1867, at a time when the mortality of Cæsarean section was so high that, in Professor Morisani's words, "to perform it was equivalent to signing the patient's death warrant," Jacolucci proposed to combine the induction of premature labour with symphysiotomy in order to avoid having to perform Cæsarean section. In consequence of the great diminution of the mortality of the latter operation since that date Professor Morisani no longer advises the combination of induction of labour with symphysiotomy for extreme cases. Flattened pelves with a conjugata vera of less than 67 mm. constitute the domain of Cæsarean section. As regards the technique of the operation, Professor Morisani recommends that the external incision should only be three to four centimetres long; he does not consider Galbiati's knife essential—a narrow, strong, blunt-pointed bistoury is equally good. He has not met with a case where the symphysis was ossified. It must not be considered to be so merely because difficulty is met with in dividing the articulation, for this may be due to its obliquity or the extreme narrowness of the cartilage. He refers to a case where, on this account, the joint could not be divided with a stout knife, but it was easily cut through by using one of a thinner pattern. Partial section of the symphysis he rejects as useless. After symphysiotomy, if the operation is confined to suitable cases, the proportion between the pelvis and the fœtal head is re-established, and if pains are good delivery may be completed by the natural powers. As, however, for various reasons there is frequently a tendency to uterine inertia, it is often necessary to apply the forceps. After delivery the approximation of the joint surfaces is sufficiently secured by bandaging and keeping the knees together. Professor Morisani considers, with regard to the various objections that have been urged against symphysiotomy, such as that it occasions difficulty in walking and the like, clinical experience warrants us in regarding them as of little account.

CHOLERA IN BRITTANY.

CHOLERA has never ceased in Brittany since last year. According to the French official returns, 11 cholera deaths and between 20 and 30 attacks took place last January; some of the localities attacked being Beuzec-Conq, Quimper, Concarneau, Brest, and Tréboul, and some of the attacks being styled choleraic or choleriform. In February there were 25 cases and 23 deaths, a proportion of death to attack which can only mean that a large number of non-fatal attacks were not recorded. In March 71 attacks and 27 deaths were noted. Between April 1st and 21st there were 94 attacks and 38 deaths, and later on 19 more deaths were registered in 13 communes. Morbihan was then specially noted as a seat of the disease, and a choleraic form of diarrhœa was reported to have prevailed in the village of Bornord, in the commune of Palais. During the first three weeks of May there have been 12 additional deaths; and Mons. Henri Monod, who has now for some time past reported the disease under the simple heading of "cholera," points out that whilst the disease is still of a scattered character, it is most persistent on the coast line and in the fishing villages. This maintained prevalence is of special importance to places on our southern and south-eastern coasts, which have relations by fishing boats and otherwise with Brittany and its ports.

ENTERTAINMENT FOR THE SIGHT-SEER.

As everyone knows, perhaps by having been present at one of the exhibitions, and certainly by finding considerable space in the papers devoted to their consideration, numerous experiments have been lately made in London with a view to test the merits of this or that bullet-proof cuirass. A bullet-proof cuirass is all very well in its way, and we can see that as long as human nature is what it is, and war and bullets necessities, a bullet-resisting cuirass will be an excellent thing for the army which possesses the patent. But surely the experiments designed to test the merits of these fabrics should be strictly relegated to the back premises of an arsenal, and not used as a popular draw on the boards of the music-hall. A serious accident has already occurred at the Canterbury Music Hall during one of these entertainments, and the victim lies at the present

moment in St. Thomas's Hospital. Apparently the protective corset (she was a lady) was not in fault but only the marksman. Be that as it may, the result of the experiment has been that the unfortunate girl was struck by a bullet on the right side of the cervical spine, a swelling beneath the left clavicle indicating the dangerous course which the bullet took. The ulnar nerve and the cervical sympathetic have been injured, while there are signs of extravasation of blood behind the trachea and in the deep structures of the neck. It is no exaggeration to say that she has escaped with her life by a miracle—indeed, it may be somewhat premature to say that she has escaped with her life at all. Now this kind of thing may be entertainment for the spectator, but it cannot be so droll for the object shot at, and we can understand that the marksman may find it easy to be a little blind to the ridiculous side of the affair.

JOINT LESIONS IN SYRINGOMYELIA.

IN a recent number of THE LANCET[1] we referred to the occurrence of the curious affection of the joints which has been regarded as peculiar to locomotor ataxy, under the name of "Charcot's joint," in cases of syringomyelia. We then referred to a case recorded by Dr. Charles K. Mills of Philadelphia, in which the knee was affected, to one published in our columns by Dr. Hughlings Jackson and Dr. Galloway in which the elbow was affected, and to another, recently brought before the Clinical Society by Mr. Lunn, in which the affection was multiple. Another case, in which the shoulder was affected, has also been published by Professor Sonnenburg, to which reference is made in a recent number of the *Neurologische Centralblatt*. The patient was a man aged fifty, who had loss of sensibility of heat and pain in the left extremities, with considerable muscular atrophy, but little or no change in electrical irritability. The left shoulder was the one affected; and unduly free passive movement could be carried out, apparently because the head of the humerus was entirely gone. The elbow- and wrist-joints seemed to be normal, but the finger-joints appeared to have enlarged capsules. The occurrence of this trophic condition of the joints in this disease is interesting. It seems to occur with considerably greater frequency than in locomotor ataxy, and considering the other manifestations of the disease this is, perhaps, what was to be expected.

EPIDEMIC OF SCARLET FEVER AT RICHMOND-HILL.

THE county medical officer of health of Surrey, Dr. Edward Seaton, has recently reported to the county council on an outbreak of scarlet fever which occurred at Richmond-hill in February last, and concerning which his advice was sought by Dr. John Rowland, the medical officer of health of Richmond. It appears that, after a period of comparative immunity of the district from scarlet fever, there took place during the ten days following Jan. 29th a sharp outburst of the disease, no less than fifty-five attacks occurring, while out of this number fifty-two obtained their milk-supply from a common source. There were twenty-six households invaded, the number of houses supplied by the milk in question being 416 and the total number of houses in the borough about 6000. Dr. Rowland, therefore, pointed out to his sanitary authority that seventeen-eighteenths of the cases were within the area of a milk-supply which served less than one-fourteenth of the total number of houses in Richmond, a condition of affairs which certainly constitutes, as Drs. Seaton and Rowland remark, a very strong *primâ-facie* case against the milk. The dairyman on request at once changed his milk-supply, and a searching inquiry was instituted as to the existence of any scarlet fever among the *employés* of the dairy; but none could be discovered. It was subsequently ascertained that scarlet fever had been recently prevalent in the rural sanitary district of Buckingham, where the three farms supplying the milk were situated, and after "a considerable amount of correspondence" it was arranged that Dr. Seaton should visit these farms. He was, however, unable to discover any evidence of the existence of scarlet fever among those directly connected with the milk business, though, as he himself suggests, this was not altogether to be wondered at, since his visit was paid some five or six weeks after the outbreak occurred. Obviously, too, after this lapse of time there would not have been much advantage in endeavouring to trace the milk supplied to the infected houses to any one farm or to any group of cows, even assuming such a thing had been possible, nor would the inspection of the cows by a veterinary surgeon have been of much value. Dr. Seaton draws attention to the insanitary conditions of some of the dairy farms he visited in Buckinghamshire, and he describes how, in one, "some thirty-six cows had to wade through filth, liquid and semi-liquid, about knee-deep on their way to the milking sheds."

[1] THE LANCET, May 19th, 1894.

A CURIOUS SUPERSTITION.

NOTWITHSTANDING the fact that an Education Act has been in force for nearly a quarter of a century a good deal of ignorance exists and manifests itself in the crudest form of superstition. In nothing more glaringly than in the popular conceptions of disease and its treatment is this ignorance shown, and the claims of quacks confirm this beyond contradiction. A curious case heard lately by the Chorley (Lancashire) magistrates reveals a state of ignorant superstition that we might have well believed had died in Elizabethan days or sooner. A young man twenty-two years of age was paying his addresses to a young woman of the same age, and fell into ill-health, and in consequence consulted a gipsy woman in the neighbourhood of his home; in prosecution of the treatment prescribed by this wise female he did the thing which procured for him his position as defendant in an assault case. On May 9th he went to his *fiancée's* house and invited her to walk abroad with him. After they had proceeded about a mile he took out a needle and pricked her so severely with it that he drew blood. He then struck her on the face several times. The defendant did not deny the charges, but he gave a most remarkable reason for his conduct. He said that he was pining away, and he was obliged to do it to ease his mind. He had been told she carried about her or had buried somewhere near the house where she lived something which attracted him, and that from the moment that "he drew her blood" she would cease to have any power over him. It was elicited in defence that the defendant was a respectable young man and a regular attendant at church and religious classes. The young lady only sought protection from further annoyance. The magistrates bound the defendant over, the chairman adding that his people ought to keep a watchful eye upon him, for actions like his accounted for in such a manner looked more like insanity than bodily illness.

ACUTE INFECTION WITH THE DIPLOCOCCUS LANCEOLATUS.

A CASE of unusual interest is recorded by Dr. W. H. Prescott in a recent number of the *Boston Medical and Surgical Journal*. It occurred in an infant shortly after birth. The mother of the child was a primapara and perfectly healthy. Nothing wrong was noticed with the infant until forty-eight hours after delivery. Then it appeared to be rather dull and slightly cyanosed. It died suddenly fifty-six hours after birth. The necropsy was made by Mr. J. R. Poor. In each pleural cavity there was a slight amount

of hæmorrhagic exudation. The entire lobe of the right lung was consolidated. The pleural surface of the lung was sprinkled with fine ecchymoses. The consolidated lung was of a dark red colour, the cut surface being dry and smooth. Ecchymoses were found in the pericardium and in the muscular tissue of the heart. Cover-glass preparations made from the lungs showed enormous numbers of typical diplococci with well-defined capsules. Similar organisms were found in the blood from the heart and in scrapings from the other organs. Cultures made from the organs gave pure cultures of diplococci from the lungs, heart, blood, liver, spleen, and kidneys. A rabbit inoculated with scrapings from the consolidated lung died in three days from typical diplococcus septicæmia. Examination of the consolidated portions of the lung showed an absence of the typical appearance of fibrinous pneumonia, the consolidation being due almost entirely to hæmorrhage into the lung. The case is of especial interest from the early age of the child and the character of the infection produced by the diplococcus lanceolatus. In this case there was a general infection of the entire organism, similar to that which is usually produced in rabbits by inoculation with virulent cultures of the diplococcus. In spite of the child being so young it is not at all probable that the infection took place in utero. The mother was absolutely free from pneumonia or from any other pathological condition at the time of birth. The character of the exudation in the lungs was also of interest. It was to a large extent hæmorrhagic in character, and the condition most resembling that produced by the organisms in the adult was a fibrinous exudation on the pleura. There can be little doubt, from the extent of the lesions in the lung, that the organisms had entered the lungs first, and probably at the time of birth.

EPIDEMIC OF HEMERALOPIA IN ASIA MINOR.

A SOMEWHAT widespread epidemic of hemeralopia is reported by Dr. Voskresenski, writing in the *Voenno-Meditsinski Zhurnal*, as having occurred among the Russian troops in Sarikamish, an elevated district in the neighbourhood of Kars, lying some 7000 ft. above the level of the Black Sea. Altogether 258 men were affected. The cause could not well be malaria as there is no malaria in the locality, and the writer, who has of course seen a great deal of malaria in other places, has scarcely ever known it to be associated with hemeralopia. He has no doubt that insufficient nourishment was the chief, if not the only, cause of the epidemic, the large majority of the cases occurring during the great fast (Lent). Some connexion appeared to exist between the hemeralopia and scurvy, for as the nutrition of the men was improved both the affections decreased. Indeed, so far as treatment was concerned, drugs did not appear to be required—rest and good nourishment in hospital generally relieving the patients in three days When the patients were allowed to continue at their duty it was sometimes nearly three weeks before a cure was effected. When cod-liver oil, however, was given most of the cases recovered in six days. The glare of the snow was probably to some extent a factor in the production of the disease. It is remarkable that soldiers arriving in the district with incipient phthisis, notwithstanding their living the ordinary barrack life, completely recovered, no physical signs remaining. It would appear, therefore, that Sarikamish may some day come to be recommended as a second Davos.

ENTERIC FEVER IN INDIA.

THE announcement of the deaths from enteric fever of three young officers of the East Surrey Regiment stationed at Agra within the brief period of a week once again draws forcible attention, says the *Pioneer Mail*, to the ravages caused by this disease in India, and to the inquiry how it is that so many young European officers recently arrived in the country are to be found among its victims. It is a very strange fact that of the number of regiments and batteries of Royal Artillery arriving every year from England and disembarking at Bombay to become dispersed over the various military stations of the Indian Empire scarcely any altogether escape being attacked by this disease during the first year or so of their Indian service. Few districts in India can claim immunity from it. Its causes—whether essential, predisposing, or exerting—have been studied and examined by numbers of medical officers and others; but under the short service system, with its more frequent renewal of the European garrison of India by drafts of men and young officers from home, the prevalence of enteric fever has been constantly increasing of late years. It proves fatal every year to a number of young and apparently strong and healthy Europeans and destroys many bright and promising lives. We have so frequently called attention to the subject that only a sense of its grave importance can excuse our reiteration. If the essential cause of the disease be a bacillus, and water be its vehicle, we venture to make the practical suggestion to the Government of India to make an experimental trial of the new forms of sterilising filters used by the Germans and French, and which the latter have found so efficacious in reducing the amount of enteric fever in the French army. The cost of such an experiment would surely not be great, even supposing it to prove unsuccessful.

EPIDEMIC OF CEREBRO-SPINAL MENINGITIS.

IN a recent number of the *Archives of Pediatrics* Dr. Berg gives in some detail an account of the various phenomena apparent in an epidemic of this disease which occurred in New York last year. As is well known cerebro-spinal meningitis is always present in New York to some extent. Thus in 1892 the number of deaths was 230, while in 1893 the number rose to 469, so that it may correctly be regarded as epidemic in the latter year. There were as many as 107 deaths in the month of May, and in the later part of the year the epidemic gradually declined. Of the cases seen by himself in private practice, seventeen in number, Dr. Berg tabulates the most prominent symptoms under three headings, (1) those due to the poison of the acute infectious disease, (2) those due to the inflammation of the cord and its meninges, and (3) those due to the inflammatory process in the brain and its membranes. Under the first heading the chief symptoms are chill or convulsion, vomiting and affections of joints, and, as a rule, eruption of a herpetic character. The usually described petechial eruption Dr. Berg did not see in any of his cases. Under the second heading are included stiffness of neck, pain in the spinal column, hyperæsthesia of surface, and difficulty with the bladder and bowels; and under the third heading are included headache, slow pulse, vertigo, convulsions, respiratory phenomena, eye symptoms, and various paralyses. The most constant and severe symptoms in Dr. Berg's cases were apparently the affections of the joints and headache. The joint troubles appeared early, varied in severity, and affected chiefly the knees and hips, and it is this affection of joints which determines the attitude in bed. The duration of the disease varied very much. Dr. Berg's shortest case was over in twelve days, while another lasted as long as eight weeks.

NORTH BRITISH VANDALISM.

THE many lovers of the beautiful who number among their pleasures a recollection of the Scottish metropolis will regard with something like dismay a proposed architectural alteration in that classic city. In consequence of a much-increased railway traffic it has become necessary to remove the North

Bridge and to construct in its place a similar but more convenient structure. If this were all, no amenity would be offended and much benefit in every way would be the probable result; but it is not all. There stands on the western side of the bridge a block of buildings which is to be acquired by the North British Railway Company and removed in order to make room for a large hotel to be erected on the site. Unfortunately there can be no doubt that the new building, both from its great height—more than half as great again as that of the surrounding streets as regulated by a municipal statute—and from its florid and commonplace architectural character, will much impair the scenic attractions of some of the finest parts of the city. To those who know the district this act of utilitarian Vandalism will appear the less excusable because it might, without much difficulty, be avoided. The site to be occupied is half an acre in extent, and there is a deep descent on the side next to the railway premises, so that a large amount of space for apartments could be obtained in this direction without increasing the height of the buildings at the street level. As regards style, moreover, it would surely be possible, at little, if any, additional cost or loss of space for accommodation, to substitute such a design, as, for example, the Italian—at once solid, commodious, and graceful—for the grandiose and comparatively vulgar models characteristic of the railway palaces of to-day. We sincerely trust it is not yet too late for an emphatic protest against the contemplated innovation and that the æsthetic aspect of the question, which is in this case by no means disconnected with material considerations, will not be overlooked when the projected alteration is discussed by members of Parliament.

MR. GLADSTONE'S HEALTH.

WE are glad to state that Mr. Gladstone's condition since the operation upon his eye on May 24th has been quite satisfactory. The eye has progressed steadily without unfavourable symptoms, and a brief trial has proved the sight to be as good as is usual at the present stage. Mr. Gladstone sleeps and eats well, sits up in his bedroom or in an adjoining apartment for several hours each day, and is abte to receive a few visitors.

BY an obvious misprint we announced last week that the Hospital Sunday Conversazione at the Mansion House would take place on June 27th; we should have said June 7th.

FURTHER REMARKS ON DR. BROWN-SÉQUARD'S LAST ILLNESS.

BY JOHN W. OGLE, M.D. OXON.

THE obituary notice of Dr. Brown-Séquard which appeared in THE LANCET of April 14th concludes by quoting the remarkable and pathetic letter written by his own hand to Dr. Waterhouse only three days before his death. In this letter he records and analyses with singular clearness, both of thought and expression, the painful cerebral symptoms from which he was suffering. To the graphic description given by the patient I am able, by the kindness and courtesy of Dr. Dupuy of Paris, a former pupil of Dr. Brown-Séquard, who attended him in his last illness, to add further particulars regarding the subsequent part of what proved to be the fatal attack.

It appears that for some years past Dr. Brown-Séquard had not seemed to his friends to be in good general health. He had, in 1889, been the subject of severe muscular rheumatism, and in the autumn of that year he suffered from some prostatic trouble. From these ailments he entirely recovered. During the following winter and spring, when at Nice, he had an attack of whooping-cough, as was mentioned in THE LANCET at the time. He was then regularly using his orchitic fluid injections. During the next two years he remained fairly well, working very hard and writing much, sometimes answering as many as eighty letters in the day. In the summer of 1893 he suffered great distress of mind owing to the ill-health of his wife, and in December he was residing at Nice and was confined to his bed, suffering from phlebitis, when his wife was dying. The consequent grief perfectly unmanned him, and was quite uncontrollable, and for some time he took but little food and was unable to sleep, refusing to leave the house. He returned to Paris at the beginning of March. Then came the vertigo and affection of sight, followed by the unconsciousness which he himself wrote about to Dr. Waterhouse, and from which he recovered. Dr. Dupuy says that at that period the speech remained "thick" and embarrassed at times, and that Dr. Brown-Séquard remarked: "This is an attack of epilepsy, as you can see." Instead of going to bed as desired, he wrote several letters, and, no doubt, wrote the letter to Dr. Waterhouse above alluded to, relating his symptoms and speculating upon them. During the following day he was in the same condition as regards vertigo, hemiopia, and occasional thickness of speech, but there was no aphasia. He was then visited also by his friends, Dr. Dejévine and Professor Potain, together with Dr. Dupuy, but could not be persuaded to take adequate rest and nourishment. On the next day (Friday) he consented to take meat, milk, and bread in small quantities throughout the day, and was comparatively cheerful. At the close of the day his face became much flushed, and the vertigo and hemiopia very distressing, and in consequence of this he walked from one room to another on "all fours," giving at the time the analysis of his symptoms and the prognosis of his case, as if he was contemplating and discoursing on the illness of another person. During the night of that day he was seized with vomiting, and in the early morning it was found that he was unable to speak and that the left arm was paralysed as to power of movement. Dr. Dupuy found later on that paralysis of the muscles on the right side of the face existed and that the tongue was protruded to the right side. The left leg and the arm and leg on the right side were unaffected. There was no muscular spasm in any part, no interference with sensation, either general or special; but vertigo was much increased, and there was external strabismus of the right eye. The condition of speech was the same, and there was still no aphasia. Towards the evening of the day the face became exceedingly congested on several occasions, and the bloodvessels of the forehead much swollen, and there was drooping of the upper eyelid of the right eye. During the morning of the next day (Saturday) he made Dr. Dupuy understand that he wished to write on a slate, but the result was unintelligible, excepting that the word "hyperæsthesia" was recognised. He then saw some friends with pleasure. At 2 A.M. on Sunday he became entirely unconscious, and coma set in. The axillary temperature rose to 40°C.—i.e., 104°F.—and he died without a struggle near midnight. After the cessation of breathing and of the heart's action all the muscles of the legs and arms were for several minutes in a state of fibrillary contraction, and the axillary temperature at the point of death rose to 41·5° C.—i.e., 105·9° F. No post-mortem examination could be made.

It will be seen, by reference to Dr. Brown-Séquard's letter to Dr. Waterhouse, mentioned before, that the early clinical symptoms (the affection of sight, the hemiopia limited to a small part of the left side of the two retinæ) described by him were considered to have a cerebral origin, and were attributed to inhibition or a vascular spasm in two small parts of the retinæ. The subsequent and graver phenomena which he recorded were attributed to a small focus of softening or hæmorrhage, but "the principal direct cause of the symptoms must have been a vascular trouble or some purely inhibitory effect due to the constant irritation of the brain or to some gastric or bowel trouble." It would appear pretty certain that the diagnosis of softening or hæmorrhage was the correct one. This would seem to have been on the right side of the brain. I will not venture to allocate it more precisely.

Cavendish-square, W.

THE INFLUENCE OF VACCINATION IN LEICESTER.

WE recently drew attention to the influence which the Leicester Fever Hospital apparently exerted on the incidence of small-pox in its neighbourhood, and we propose now to

refer briefly to Dr. Priestley's valuable report on the effect of vaccination in its relation to small-pox as evidenced in Leicester during 1892-93. A word, in the first place, with reference to the extent of vaccination in the borough. There were in 1893 but 249 primary vaccinations actually registered, but since the Vaccination Acts are practically a dead letter in Leicester this number represents merely the certificates which were sent to the vaccination officer. In order, therefore, to obtain some idea of the amount of vaccination performed during the first three months of 1893 Dr. Priestley sent a circular letter to all the medical practitioners in his district, and from the answers he received he estimates that during the period in question from 2000 to 3000 vaccinations and revaccinations took place in Leicester, a number which would seem to indicate that in the sixteen months during which the epidemic lasted a considerable proportion of the unprotected population sought vaccination. Obviously, however, the child population of Leicester is practically an unprotected community, except in so far as it is surrounded by an adult population partly protected by its infantile vaccination; and the recent statistics in regard to small-pox and vaccination bring into prominence the important fact that the age incidence of fatal small-pox in Leicester is rapidly reverting to what it was in the country as a whole in pre-vaccination times; moreover, a large proportion of those attacked have been under ten years of age. This point, as also the age and sex distribution of attacks on the vaccinated, is well seen in Table I., which we have drawn up from the figures contained in Dr. Priestley's report. It might perhaps be contended in reference to the figures given in this table that the remarkable immunity from attack of vaccinated children under ten years of age is due to the small number of children of this class in Leicester, but fortunately this contention can be refuted by Dr. Priestley's statistics in relation to the quarantined cases, where he shows that out of 91 vaccinated children under ten who were exposed to infection only 2 were attacked, as against 52 out of 271 unvaccinated children of the same age period.

Coming now to the relation of deaths to attack we find that there were, among the 347 cases, 21 deaths; and of these 19 were among the unvaccinated and one each among the vaccinated and doubtful cases. The total case mortality was therefore 6·02 per cent., and we have endeavoured to embody the salient features as regards mortality, &c., in Table II.

The number of lives lost is, however, but a portion of the penalty to be paid for neglected vaccination; and we may mention the fact that 19 of the malignant or semi-malignant cases which recovered were "disfigured for life." Dr. Priestley's report, too, brings out with a remarkable force the modifying effect which vaccination has had on the course of the disease in those attacked, and in this connexion we have been able by a slight rearrangement to produce Dr. Priestley's table in full. (Table III.).

TABLE I.

Sex.	Number of cases.	Under ten.		Ten and over.			All ages.		
		Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	Doubtful.	Vaccinated.	Unvaccinated.	Doubtful.
Males ..	176	1	44	103	26	2	104	70	2
Females ..	171	1	61	87	22	—	88	83	—
Totals ..	347	2	105	190	48	2	192	153	2

TABLE II.

Age Groups.	Cases among vaccinated.	Deaths.	Case mortality per cent.	Cases among unvaccinated.	Deaths.	Case mortality per cent.	Doubtful cases.	Deaths.	Case mortality per cent.
Under ten	2	0	0	105	15	14·3	0	0	0
Ten and over ..	190	1	0·5	48	4	8·3	2	1	50
All ages ..	192	1	0·5	153	19	12·4	2	1	50

TABLE III.

—	Adults (10 and over), 240																				Children (under ten), 107													
	Vaccinated, 176								Revaccinated, 14				Unvaccinated, 48								Doubtful as to vaccination, 2		Vaccinated, 2		Unvaccinated, 105											
	Mild, 14			Very Mild, 100			Severe, 16			Very severe, 0			Mild, 2			Very mild, 11			Severe, 1		Severe, 2		Very mild, 2		Severe, 45			Very severe, 43			Mild, 11			Very mild 6	
Character of eruption	Discrete.	Coherent.	Confluent.	Discrete.	Coherent.	Confluent.	Discrete.	Coherent.	Confluent.	—	—	—	Discrete.	Confluent.	Discrete.	Discrete.	Coherent.	Confluent.	Discrete.	Coherent.	Confluent.	Confluent.	Discrete.	Discrete.	Coherent.	Confluent.	Discrete.	Coherent.	Confluent.	Malignant.	Discrete.	Coherent.	Confluent.	Discrete.
No. of cases	31	18	5	99	2	5	1	5	10	—	—	—	1	1	6	11	0	0	1	1	2	2	8	19	18	0	2	19	22	10	1	6	5
Abortive cases ..	25	12	3	93	2	5	0	0	0	—	—	—	1	1	1	1	0	0	1	0	0	2	0	0	0	0	0	0	0	3	1	5	5

Taking first the vaccinated of ten years and over we find that as many as 160 out of 176 had mild or very mild attacks, 140 cases aborting; 16 were severe and 1 died. Of the 14 revaccinated cases all were mild or very mild except 1, where there was a doubt as to the revaccination, and the patient had a severe but abortive attack. Comparing the foregoing with the 50 unvaccinated we have to record no less than 46 severe or very severe cases, with 4 deaths, while only 4 were mild or very mild. With respect to the children under ten years, there were among the vaccinated but 2 cases, and these were of doubtful character; but when we come to the unvaccinated children of the same age period we find out of 105 unvaccinated cases 88 were severe or very severe and there were 16 deaths, only 17 cases being mild in nature. In regard to the amount of protection afforded by one or more scars we find an instructive table (Table IV.),

TABLE IV.

Vaccination marks.	Mild.						Very mild.						Severe.			Very severe.			
	Discrete.		Coherent.		Confluent.		Discrete.		Coherent.		Confluent.								
	Cases.	Aborted.	Cases.	Aborted.	Cases.	Aborted.	Cases.	Aborted.	Cases.	Aborted.	Cases.	Aborted.	Discrete.	Coherent.	Confluent.	Discrete.	Coherent.	Confluent.	Malignant.
1	1	1	1	1	—	—	3	3	—	—	—	—	—	1	2	—	—	—	—
2	13	9	3	2	—	—	18	15	3	3	—	—	—	1	5	—	—	—	—
3	5	4	10	7	5	3	35	35	2	2	—	—	1	1	3	—	—	—	—
4	5	4	2	2	—	—	33	30	—	—	2	2	—	1	—	—	—	—	—
5	5	4	—	—	—	—	11	11	—	—	—	—	—	1	—	—	—	—	—
6	2	2	2	1	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—
0	12	4	1	1	—	—	8	6	—	—	—	—	14	30	25	1	3	26	35

which should do something to convince those who vaccinate by one insertion only of the poor protection and therefore the false security which they are affording. It would have added to the interest of the table had Dr. Priestley been able to include in it some figures as to the total combined area of the cicatrices and the degree of foveation of the scars, but we can easily understand that he had but little time for that additional labour, apart altogether from the difficulty of making accurate observations on these points while the eruption was out.

In dealing with the length of stay in hospital another exemplification of the value of vaccination is afforded. Among the vaccinated under ten years of age the average length of stay in hospital was 14·5 days, among the unvaccinated 47·3 days. At ten and over the average stay of the vaccinated was 28·6 days, of the revaccinated 26·8, and of the unvaccinated 44·2. We are extremely glad to see that Dr. Priestley has taken up a strong position in regard to the staff of the fever hospital, and that he allows no new official, unless revaccinated, to be appointed. It is difficult to see how the necessity for this action can be other than apparent to even the anti-vaccinationists, for out of forty officials attached to the small-pox hospital six were imperfectly protected, and of these, five contracted small-pox and one died, the only one to escape being the matron, who only occasionally visited the wards.

TABLE V.

Protected. Condition as regards vaccination.	Number of exposures and attacks. Numbers exposed to infection.	Under ten	Attacks.	Ten and over.	Attacks.
Vaccinated	732	87	(?) 2	645	49
Revaccinated	87	0	0	87	2
Had small-pox	27	1	0	26	0
Vaccinated during quarantine	51	39	3	12	1
Revaccinated during quarantine	72	4	0	68	3
Total	969	131	5	838	55
Unprotected	292	231	49	61	14

As Dr. Priestley remarks in respect to these figures: "Comment is unnecessary; the silent testimony of such facts is a sufficient answer to all who may have their doubts as to the efficiency of revaccination as a preventive measure against small-pox." Lastly, in the matter of quarantine, the recent outbreak has supplied some interesting facts and figures. Quarantine at hospital broke down at an early date, and the majority of those who had been exposed to small-pox were "quarantined" at their own homes. There were in all 1261 persons thus quarantined, either at the hospital or their homes, and among the 969 classed as protected the results were as shown in Table V.

It will thus be seen that, of the 1261 persons exposed, 899 were ten years old and over, and of the 347 cases of small-pox no less than 240 were of the same age group. From these facts Dr. Priestley concludes that small-pox "has broken out chiefly among the vaccinated adult population, and has been prevented from spreading, not only by prompt isolation and other measures taken, but also by the fact that our adult population is vaccinated and therefore semi-protected." Surely a consideration of all these points but briefly alluded to above should do something towards stimulating the guardians of Leicester to put the Vaccination Acts in force. For Leicester to contend, as a justification of her action, that other large towns have suffered equally with her in regard to small-pox is but to advertise to the world the influence for harm which Leicester's attitude has had in other parts of England and in no way touches the merits of vaccination.

NOTE ON TANGIER AS A WINTER STATION.

BY W. C. GREIG, M.B., C.M. EDIN.

THE attention which Tangier has received of late induces me to offer some information on the subject of its climate and its suitability as a winter resort for invalids. My knowledge of the place is derived from my having practised there for the past five years. The table of averages appended, which has been carefully prepared by Mr. H. E. White, H.B.M. Consul, has been already published and will serve to give a general idea of the climate.

The town of Tangier is situated in latitude 36° N., on a peninsula which is bounded on three sides by the sea. Hence its climatic character, which is *warm insular*. The winters are mild, equable, and rather humid. The shade temperature is remarkably constant. There is a great deal of sunshine, and the difference between the temperature in the sun and in the shade is naturally very great. Rain falls any time between September and April in uncertain quantities, but I think I may venture to say that fine, sunshiny weather is the rule. The prevailing winds are from the south-west and east, and absolutely still days are rare. Dew falls heavily at night. The summers are warm, but not unpleasantly hot, as the air is always tempered by the fresh sea breeze which blows during the day. Generally speaking, I believe that the climate has a character intermediate between that of Algiers and that of Orotava. It is warmer in winter than Algiers

and colder than Orotava, but in spring and summer it is cooler than either.

The number of invalids who spend the winter at Tangier is still quite small, though there is a constant stream of visitors passing through the place. The climate is well suited for phthisical cases and for cases of bronchitis and asthma. A few people suffering from insomnia have done well. Some cases of chronic Bright's disease have shown marked improvement. The cases which are not suitable are those of rheumatism, heart disease, and dyspepsia. Patients suffering from mental derangement ought to avoid Tangier; the complete change of air and of scene which it offers makes it a suitable place for most convalescents. The really strong point in Tangier is its temperate summer climate, which renders it quite possible to live there comfortably all the year round. The phthisical patients who do best are those who stay for two years without any return to England. After this they may take a change during the summer. The society is good, and the accommodation has so far proved sufficient for the number of people who come.

Averages.

Month.	Dry bulb, 9 A.M.	Wet bulb, 9 A.M.	Dew point, 9 A.M.	Relative humidity, 9 A.M.	Maximum in sun.	Mean of maximum in sun.	Maximum in shade.	Mean of maximum in shade.	Minimum.	Mean of minimum.	Rainfall.
January ..	51·7	48·5	45·6	82	126·5	114·9	63·0	56·8	39·8	47·3	4·77
February ..	54·2	51·9	48·8	80	131·2	121·0	63·7	59·0	43·7	49·3	3·34
March	57·1	53·8	49·9	76	136·0	126·1	69·7	61·0	45·2	52·7	5·51
April	60·7	58·0	54·8	78	138·6	130·5	72·3	65·1	50·3	54·7	4·13
May	64·8	61·2	57·3	74	144·5	133·7	75·4	68·9	51·9	57·6	2·41
June	70·3	65·6	61·3	71	146·6	138·1	83·5	75·2	56·2	62·7	0·36
July	73·7	65·9	62·2	65	146·0	139·2	84·5	77·5	60·8	65·7	0·08
August ..	73·6	68·4	64·0	69	148·4	140·5	83·8	77·7	62·2	66·8	0·03
September ..	71·2	66·7	62·7	72	144·0	137·2	82·0	75·9	59·2	64·4	1·00
October ..	65·2	62·8	58·1	77	142·0	130·9	76·5	69·3	51·3	59·7	4·00
November ..	59·2	56·5	53·7	82	134·5	120·3	68·4	62·1	43·0	55·2	2·75
December ..	53·9	51·9	49·4	83	126·9	113·4	64·3	58·4	46·8	49·2	3·94

The average yearly rainfall is about 32½ inches; the rainfall is calculated on ten years; the sun maximum is calculated on three years generally; but of some of the summer months only one record is kept. Most of the other averages are calculated on five years.

ARMY MEDICAL REPORT FOR 1892.

[SECOND NOTICE.]

ADVERTING to the subject of recruiting for the army, it will be seen by the report that the number of recruits inspected during 1892 was 68,761: of these, 26,349 were rejected as unfit, equal to a ratio of 383·19 per 1000; the remaining 42,412, or 616·81 per 1000, were found fit for the service. It is calculated that, excluding boys under seventeen years of age, the average age of recruits approved during the year was 19·3 years; the average height was 5 ft. 5·7 in.; the average weight 123·8 lb., and the average chest measurement 33·5 in.

There is but little in the reports on the sanitary conditions of the Home Stations calling for notice. The principal medical officer of the North-Eastern District takes exception to the quality of blankets supplied to the troops, and recommends that some method of supplying warm water to the ablution rooms should be attempted. The question of urinals for barrack-rooms has never been satisfactorily settled. The recesses for night urinals opening into barrack-rooms have, it is stated, been closed throughout this district, and we believe that generally in other districts also they have not worked well. To some extent, no doubt, this resolves itself into a question of administration and internal economy, but not altogether, and a simple and unobjectionable device for the purpose in barracks has yet to be found. The principal medical officer at Aldershot reports that the general health of the troops has been good and shows an improvement on 1891. He lays much stress upon the inconvenience and possible danger to health caused by the proximity of the sewage farm. The reconstruction of the camp is fast approaching completion; increased hospital accommodation is much required, and a new infectious hospital on Thorn Hill has been recommended. The Royal Military College, Sandhurst, is included in the Aldershot district, and it is reported to be highly satisfactory as regards health and sanitation.

Turning to that section of the report which deals with the health of the army abroad, we come, first of all, to the troops serving in the Mediterranean. The general health of the garrison of Gibraltar is satisfactory. As regards enteric fever, the preceding year (1891) was exceptional; the decrease in the number of cases in that year is considered to be probably connected with the fact that there was no considerable addition of young soldiers to the garrison until the end of the year. Omitting this year, however, 1892 compares favourably with previous years. There were 78 admissions for simple continued fever in the garrison in 1892, and no deaths, or 15·8 admissions per 1000, which is 12·7 per 1000 below the average of the last six years. In recent years there has been a marked decrease in this form of fever. The six years from 1880–85 showed an average admission-rate of 154·3 per 1000. The next six years only gave a rate of 28·5 per 1000. These excellent results appear to have followed *pari passu* with the general application of the following sanitary improvements throughout the fortress—viz, covering the ground in and around the barracks and habitations generally with cement concrete; relaying, trapping, and securely jointing drains; improvement of latrines; free use of disinfectants in sewers; more frequent and better removal of refuse; and also by increasing the cubic space per man in barracks at night during the summer by means of tents.

In Malta the average strength of the garrison in 1892 was 7847. The principal statistics of sickness and mortality are shown in the following table:—

Average constantly sick.	Ratio per 1000 of strength.				
	Admissions.	Deaths.	Invalids sent home.	Invalids finally discharged.	Constantly sick.
371·84	724·6	8·54	23·06	14·02	47·38

The greatest number of admissions for enteric fever, which caused 74 admissions and 25 deaths in 1892, were from the troops at Pembroke Camp and on the Sliema side of the harbour, especially at the commencement of the outbreak; afterwards the troops at Lower St. Elmo suffered. The soldiers' families almost entirely escaped. It is stated that the water supply of the grog shops frequented by the men is notoriously impure, being derived in most instances from wells having a cesspit adjacent. It is feared also that, owing to the unusually heavy autumnal rains, one of the branches of the aqueduct water-supply became contaminated, the sewage contents of neighbouring cesspits having been washed into it. It is noteworthy that in Gibraltar the total admission-rate for all forms of venereal disease in 1892 was 269·1 per 1000, being above the rate of the previous year by 87·6 and above the sexennial average by 20·9; whereas in Malta the total admission-rate for all forms of venereal disease shows a decrease of 32·0 under the previous year, being 145·9 in 1892 to 177·9 in 1891, and a decrease also of 4·45 in the ratio of those constantly sick. As compared, however, with the previous sexennial period there is an increase of 33·9 in the admission-rate and of 2·17 in those constantly sick. The principal medical officer at Gibraltar, it may be remarked, strongly advises the reintroduction of the Contagious Diseases Acts, owing to the very marked increase of venereal affections among the troops in that garrison.

Passing over Cyprus and Canada as containing nothing important we come to Bermuda, where we notice that, although there is a decrease in the admission-, death-, and constantly sick-rates in 1892 as compared with the corresponding ratios for the previous ten years, there is an increase of 22·0 per 1000 in the admission-rate, and one of

5·68 in the death-rate for 1892, as compared with similar rates in the preceding year. Enteric fever caused 22 admissions and 6 deaths in 1892, rather less than in 1891. The Mauritius is an unhealthy station, but the strength of the garrison being small (560) statistical averages are liable to fluctuations, and are unreliable. The ratios for 1892 compare favourably with those of previous years, still the admission-rate was 1066·0 per 1000, the death-rate 17·86, the invaliding-rate 50·0, and the constantly sick-rate 44·53 per 1000. The sanitary condition of Port Louis is bad; it is highly malarious, and there is a general ignorance, with neglect, of elementary rules of sanitation. The decrease in the admission-rate among the troops as compared with the previous six years is due to the larger proportion of the garrison being quartered in Curepipe.

With regard to the reports from India we may remark that most of the subjects calling for observation have been already anticipated, or will be noticed in our articles on the Report of the Sanitary Commissioner with the Government of India.

DEMONSTRATION OF THE HYDERABAD METHOD OF CHLOROFORM ADMINISTRATION AT THE LONDON HOSPITAL, MAY 25TH, 1894.

By SURGEON-LIEUTENANT-COLONEL LAWRIE.

THE lecturer having been introduced by Mr. Treves, said:—Gentlemen of the London Hospital Medical College,—I have been most highly honoured by an invitation from Mr. Treves to demonstrate the Hyderabad method of giving chloroform in the London Hospital. This invitation I have accepted with pleasure, and I beg to assure you that it will be regarded by the Nizam as the most gratifying compliment your hospital, the greatest surgical hospital in London, could pay to his Highness's Government, which, as you are aware, has done so much in the cause of humanity.

I present myself before you with mixed feelings and must crave your profound indulgence, for, in the first place, after a residence of over twenty years in India, it is to me an event of the first magnitude to meet a man so distinguished in surgery as Mr. Treves; and, in the second place, I find myself about to address an audience which, from long habit of thought, confirmed by personal observation at your annual gathering the other evening, I can say without any tinge of exaggeration I regard as, in so far as my own profession is concerned, the first audience in the world.

Before I proceed to speak of the action of chloroform I must in a few preliminary remarks ask you to put away from your minds all side issues, such as, for example, the effects of climate, differences between man and animals, the nature of the operations performed in London as compared with Hyderabad, as well as my own personality, and to concentrate your thoughts entirely on the action of the drug. I can tell you nothing new about chloroform, but you will find, if once you become interested in it, that there is something to learn about it every day, and that, just as you never see two cases of tumour precisely alike, so you never meet with two cases of anæsthesia which precisely resemble one another. I have been accused of trying to rob the anæsthesia specialists of their business. This is a narrow-minded and erroneous view. It stands to reason that the more the scope and usefulness of chloroform are extended the more work will there necessarily be for the anæsthetists to do. Lastly, in the course of my short address I shall have frequent occasion to mention the name of Syme. I feel sure, however, from what I have already seen of your healthy devotion to your master in surgery, Mr. Treves, that I shall have your full sympathy in remarks dictated by my devotion to my former master, Mr. Syme.

Our creed about chloroform is a very simple one. The anæsthetic is administered by inhalation, and during the inhalation there are two things to avoid—(1) the inhalation or intake of an overdose, and (2) interference with the breathing. In order to avoid these evils we were taught by Syme, as a matter of common sense, to take the respiration as our guide. In the second place, Syme, following Simpson, quickly discovered that chloroform does not cause failure of the heart prior to failure of the respiration; he therefore taught us that we were not to be guided by the circulation but entirely by the respiration. His words were: "You never see anybody here with his finger on the pulse when chloroform is given." Syme's third principle was never to push chloroform beyond the point when anæsthesia is complete, the signs of complete anæsthesia being stertorous breathing or abolition of the corneal reflex. Having always acted on Syme's principles, we can point to a continuous series of cases of chloroform administration, extending from the year 1847 until the present day, without a death. In this respect I am by no means singular. Hundreds of Syme's pupils, and in a smaller way hundreds of my own pupils, can tell a similar tale. You may say that this merely shows the possibility of giving chloroform in a large number of cases without a fatality. We say that it proves the value and correctness of Syme's principles of chloroform administration, and that it shows clinically—by which I mean up to the limit of anæsthesia—that chloroform has no direct action on the heart. It is one thing, however, to believe oneself that safety under chloroform can be ensured by attending properly to the respiration alone, but it is quite another thing to make other people believe it. The difficulty lies in the fact that a large number of our profession are firmly and honestly convinced, on apparently good grounds, that chloroform does directly affect the heart. Accordingly in 1889 we were called upon to demonstrate the action of chloroform by laboratory experiments, and to decide whether it has or has not a direct action upon the heart, in order to set at rest once for all the question whether it is right or wrong to take the pulse for a guide as to its effects. This led, through the liberality and public spirit of the Nizam's Government, to the appointment of the Hyderabad Commission on Chloroform. I offer you no apology for dwelling briefly upon the work of this Commission, on which I occupied a position which enables me to speak of it without egoism, on the one hand, or reserve, on the other. I agreed in 1889, and I understood at the time that the rest of the profession agreed, to stand or fall, as regards the action of chloroform on the heart, by the results of the Commission's experiments. The only reservation I made was that nothing the Commission could discover would persuade me that I could not give chloroform safely.

At these experiments I was for the most part a spectator. They were performed by Dr. Lauder Brunton and Surgeon-Major Bomford. Dr. Brunton directed the experimental procedures with the self-recording apparatus, which consisted of the ordinary mercurial and glycerine manometers. Surgeon-Major Bomford recorded on the drum every fact, no matter how trivial, as it took place during the time the experiment lasted, and it is this record which gives the experiments their principal and permanent value. Briefly, the experiments of the Hyderabad Commission show (*a*) that the fall of blood-pressure under chloroform, which had, chiefly on the authority of the Glasgow Committee, been up to that time relied upon as the physiological proof *par excellence* of danger to the heart, is in itself harmless and cannot, therefore, be due to cardiac failure; and (*b*) that chloroform anæsthesia alone is absolutely free from risk. It appeared probable, indeed almost certain, from the experiments of the Hyderabad Commission, that the direct fall of blood-pressure under chloroform was altogether vaso-motor, but it could not for various reasons be definitely settled in 1889. This was not enough to satisfy the profession, and we had still to show what the direct fall of blood pressure under chloroform is actually due to, and that the anæsthetic does not ever under any circumstances act upon the heart directly. The proof was completed by Drs. Gaskell and Shore's cross-circulation experiments, which were carried out in Hyderabad in 1892. These experiments proved finally—and you can see the proof for yourselves in the tracings—that when chloroform is sent to the heart alone it produces no effect whatsoever—no anæsthesia, no fall of the blood pressure, and no respiratory failure. On the other hand, when it is sent to the brain and not to the heart it produces its usual well-known effects—namely, lowering of the blood pressure with, first, anæsthesia, then stoppage of the respiration, and then death by failure and arrest of the heart's action. In short, the Hyderabad cross-circulation experiments demonstrate incontestably that the fall of blood pressure, due to the direct action of chloroform, is caused by vaso-motor narcosis and is not due to weakening of the heart.

I must hasten to finish what I have to say to you with the statement of a practical fact and a practical conclusion. The practical fact is that my students can be relied upon to give chloroform with care and safety; and the practical

conclusion is that if I and my students can give chloroform with uniform safety, *a fortiori*—and no one allows this more readily than we do—you can do the same. You can only do it, however, as my men do it, by being taught the right way; and the right way is to give the anæsthetic in such a manner that the breathing is never interfered with, and to altogether ignore the heart and pulse as factors in the administration.

I will only add that I can imagine no greater difficulty in practice than the one which lies before you—viz, to have to abandon the firm conviction that chloroform acts directly upon the heart and to completely alter your principles of chloroformisation; but the men of "the London," with such a surgeon as Mr. Treves at their head, seconded by a man of the calibre of Dr. Hewitt, are not the men I take them to be if they do not conquer this difficulty and bring the question of the administration of chloroform, in the solution of which we in India have played a humble and up to now a distant part, to a successful issue.

Operations by Mr. TREVES.—*Anæsthetic Notes.*—CASE 1: Excision of the Vermiform Appendix.—T. M——, aged forty-eight. Food last taken 6 A.M. to-day. Pulse and respiration immediately before the operation 88 and 24 respectively. Chloroform administered by Dr. Mahomed Abdul Ghany on one of the ordinary Hyderabad caps. The administration was commenced, in one drachm doses applied to the cap at intervals of a minute, at 2h. 27m. 10s. The struggling stage began at 2h. 29m. 43s. and lasted until 2h. 32m. 25s. The cornea became insensitive, and anæsthesia was complete at 2h. 32m. 35s. The anæsthesia was normal and was produced in 5m. 25s. with five drachms of chloroform. During the operation some delay was caused by rigidity of the abdominal muscles. The duration of the operation was 36m. 40s., and the total amount of chloroform employed one ounce.

Operation.—An incision two inches and a half long was made through the abdominal wall and peritoneum over the cæcum, which was exposed and drawn out of the wound, and the appendix was found adherent to and tucked up beneath it. The peritoneal covering having been divided and retracted, the appendix was ligatured with No. 2 silk, about half an inch from its entrance into the cæcum, and cut off The stump of the appendix was next covered in with the divided peritoneum, held in position by three catgut sutures, and then fixed beneath the peritoneum surrounding the cæcum, which had been cut when the appendix was separated from it. The parietal peritoneum was sutured with a continuous catgut suture, and the operation was completed by free dusting of the wound with iodoform and the application of Tilman's dressing. This patient afterwards did well and had no vomiting.

Anæsthetic Notes.—CASE 2: Nephrectomy.—H. H——, aged twenty-one. Food last taken 10 A.M. to-day. Pulse and respiration immediately before the operation 120 and 32 respectively. Chloroform was administered, as in Case 1, by Dr. Ghany. The administration was commenced in one drachm doses at 3h. 9m. 15s. The struggling stage began at 3h. 11m. 50s. and ended at 3h. 12m. 10s. At 3h. 14m. 0s. the patient vomited a slight amount of food and a quantity of bile, and the cap had to be removed for 50s. The cornea was insensitive, and anæsthesia was complete at 3h. 15m. 30s., and, except that the patient vomited, the anæsthesia was normal and was produced in 6m. 15s. with five drachms of chloroform. As in Case 1, there was occasional rigidity of the abdominal muscles, which interfered with the surgeon's manipulations. The duration of the operation was 37m. 35s., and the total amount of chloroform employed was eleven drachms.

Operation.—The right kidney was exposed by enlarging an old wound which had been made for a previous operation of nephrotomy on Feb. 17th last. The kidney was found enlarged and cystic and was completely surrounded by extremely dense and firm adhesions, which were only detached with great difficulty. The renal vessels and ureters were grasped after considerable trouble with a volsellum and secured with silk, and, the pedicle having been cut through, the kidney was removed. The wound cavity was packed with iodoform gauze.

This patient made an excellent recovery. He vomited after being put to bed and again three times during the night following the operation, but he states that the after-effects of the chloroform were in no other way unpleasant; whereas he vomited for three days and had a bad taste in his mouth and a very severe headache after the former operation on Feb. 17th, when anæsthesia was produced with ether. It is fair to add, however, that the former operation under ether did not relieve him, whereas he was entirely freed from his disease by the second operation under chloroform.

With regard to the anæsthesia Mr. Treves said that he was satisfied with the Hyderabad method of giving chloroform, and that the only objection he had to make to it was that the abdominal muscles were not completely relaxed. This was not the fault of the chloroform. The chloroformist was new to Mr. Treves's methods, and with a little practice under that surgeon he would readily get into the way of producing the complete relaxation which is necessary in operations of the kind performed on the 25th. Both cases were somewhat exceptional. In the first insensibility of the cornea was an unusually early sign of anæsthesia; and in the second case the patient vomited at a time when vomiting under chloroform is extremely rare.

SIR GEORGE BUCHANAN TESTIMONIAL.

IT will be recollected that shortly after Sir George Buchanan's retirement from the post of medical officer to the Local Government Board, which he had held for twelve years, some of his friends and admirers thought the occasion an appropriate one for presenting him with a testimonial in recognition of the admirable way in which he had performed the duties of his office, the excellent service he had rendered to both the scientific and the practical sides of preventive medicine, and his gentlemanly and amiable character, which had endeared him to all who had been brought into direct relation with him. A meeting was held, at which Sir Henry Acland was appointed chairman, Dr. Bristowe treasurer, and Drs. Hamer and Thresh honorary secretaries, and a committee including the above names was appointed to take the whole matter in hand. Within a comparatively short time the pecuniary success of the testimonial fund was assured, and nearly all the subscriptions promised had been paid in. Sir George Buchanan was then communicated with in order to ascertain what views, if any, he might have with respect to the disposal of the fund. He at once repudiated all desire to have the proceeds of the fund expended, in whole or in part, on a present to himself, and expressed an earnest desire that it should be devoted to the foundation of a gold medal to be awarded periodically by the Royal Society (provided they would accept the responsibility) in respect of "distinguished services to hygienic science or practice in the direction either of original research or of professional, administrative, or constructive work." The committee then ascertained informally that under certain conditions there was no doubt of the acceptance. Shortly afterwards Messrs. Pinches, die-sinkers, were interviewed, with the result that it was arranged with them that they should make a die of sufficient size to produce a £20 gold medal, with Sir George Buchanan's portrait on the one side and an allegorical group on the other. Owing to accidental and other circumstances, the production of the die took a very long time, and it is only recently that it has been completed. In accordance with Sir George Buchanan's wishes the die was presented to the Royal Society, together with all the money remaining after paying incidental expenses—the cost of the die and of a gold medal (which the committee had decided to present to Lady Buchanan) and of an illuminated book containing a short address to Sir George Buchanan, and the names of all the subscribers. It was arranged, also, with the Royal Society that the recipient of the gold medal should receive additionally any surplus accruing from the testimonial fund since its previous award. It was well known that Sir George Buchanan had an insuperable objection to display of any kind, and, under these circumstances, it was decided at the last committee meeting that the presentation should be made in private and in the presence only of Sir Henry Acland, Dr. Bristowe, and Drs. Hamer and Thresh. This took place on the afternoon of Wednesday, May 23rd, at Dr. Bristowe's residence, the above gentlemen being present, together with Sir George and Lady Buchanan. Sir Henry Acland occupied the chair and made a very graceful and appreciative speech, in the course of which he explained all that had happened, and especially that the die (together with £276 12*s.*) had been handed over to the Royal Society and had been accepted

by them on the terms previously arranged. He also handed to Lady Buchanan the first Buchanan gold medal, and to Sir George Buchanan himself a bronze medal and the book containing the names of the subscribers. After a few heartfelt words from Sir George and Lady Buchanan the meeting terminated.

We append the conditions under which the Royal Society has consented to administer the Sir George Buchanan Testimonial Fund:—

1. The money collected after paying expenses incurred to be devoted: (*a*) to the foundation of a gold medal of the value as nearly as may be of twenty guineas, with a portrait of Sir George Buchanan on the one side and an appropriate design on the other, to be awarded every three or five years in respect of distinguished services to hygienic science or practice in the direction either of original research or of professional, administrative, or constructive work; (*b*) to the bestowal on the recipient of the medal of the amount (remaining after paying for the medal and discharging the incidental expenses) which has accumulated since the last award.

2. The medal to be awarded without limit of nationality or sex.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A SPECIAL meeting of the committee of the Association of Fellows of the Royal College of Surgeons of England was held on Wednesday, May 23rd, at 5.30 P.M., Mr. George Pollock, President, in the chair. There was a large attendance. The minutes of the last meeting having been read and confirmed, the hon. sec. (Mr. Percy Dunn) explained the reasons for which the committee had been summoned. Some correspondence had recently passed between a provincial Fellow and himself in reference to the formation of a local branch of the Association at an important provincial centre. It appeared from the letters of the Fellow above referred to that in his district no definite information existed in regard to the organisation of the Association, so much so that it had lately been freely alleged that the Association, as such, was dead. With a view to remove these erroneous impressions the committee was asked to afford authoritative information in regard to the organisation of the Association, the constitution of the committee, and any other details which it might be considered desirable to promulgate. Resolutions were passed (1) to reprint the rules of the Association; (2) appointing a subcommittee to meet forthwith and prepare a statement concerning the organisation of the Association; and (3) to empower the subcommittee to take such steps as might be thought necessary to make the Fellows of the College better acquainted with the working of the Association. The probable vacancies on the Council of the College at the July election were then discussed. The retiring members of the Council would be Mr. Lund, Mr. Reginald Harrison, and Mr. Howard Marsh, and of these Mr. Harrison and Mr. Marsh intended to offer themselves for re-election. There would therefore be one absolute vacancy, and the nomination of Mr. A. T. Norton, senior surgeon to St Mary's Hospital, to represent the views of the Association, adopted at a previous meeting, was unanimously confirmed. Surgeon-Colonel Francis H. Welch, F.R.C.S. Eng., of Devonport, was unanimously elected a member of the Association.

The hon. secretary was instructed to write to certain members of the committee with a view to ascertain whether it was their wish to be renominated as members of the committee.

The hon. secretary having pointed out that the interval before the day fixed at the last meeting for the annual general meeting of the Association was insufficient for the transaction of necessary antecedent business, the date was altered from June 14th to Tuesday, June 19th, the committee to hold a preliminary meeting on June 18th to prepare the agenda. Due notice of the time and place of the general meeting will be issued to the members of the Association.

The hon. secretary was instructed to issue the usual appeal for the annual subscriptions. This concluded the business of the meeting, and the committee adjourned.

EPSOM COLLEGE: ANNUAL REPORT OF THE COUNCIL, 1894.

THE annual report of the council of Epsom College was presented at a general meeting of the governors on Thursday last, Dr. Holman, the treasurer, in the chair. The salient features of the report were as follows:—

The council have the pleasure to inform the governors that his Grace the Duke of Abercorn, whose name will be submitted for election at this meeting, has most kindly consented to accept the vacant office of President of the institution. They regret to have to announce that Dr. T. H. Waterworth, a member of their body, died in December last, and that Sir John R. Jennings, whose advice has been o great service to the council, has been obliged to resign hi seat in consequence of the pressure of other engagements. It is proposed that Colonel Gordon Watson and Mr. C. L. Smiles be elected to fill the vacancies. In accordance with the provisions of the Act of Incorporation ten members of the council retire at this meeting, and it is proposed that nine of them be re-elected for a further period of three years, and that Dr. Saundby be elected to fill the vacancy. It is also proposed that Mr. Burnett, Mr. Colman, and Mr. May be reappointed auditors for the ensuing year.

Mr. Jukes de Styrap, M.R.C.P. Irel., M.R.C.S. Eng., honorary local secretary for Shrewsbury, has succeeded in collecting the sum of £1000, and the council have great pleasure in submitting his name to the governors for election as a vice-president of the institution. It is difficult to realise the expense of time and self-sacrifice entailed by the collection of such a large sum, and the council are confident that the governors will welcome this opportunity of showing their gratitude to Mr. de Styrap.

The College has received a legacy of £10,000 Consols under the will of the late Mr. T. B. Pugh for the creation of pensionerships the holders of which shall have annuities without residence. This legacy has come at a very opportune time, because the council have for some years been earnestly considering the question of granting increased annuities to all the pensioners instead of giving residences to some of them. It will be in the memory of all that a fund for this purpose was started in 1892, to which Her Majesty graciously subscribed, and to which the Editors of THE LANCET generously gave £1000. Further contributions towards this fund will be very gratefully received. There can be no doubt that it is a truer form of charity to give such annuities to the pensioners as will enable them to live and end their days amongst those dear to them, instead of compelling them to pass their declining years amidst strangers, perhaps far from all friends and relations. It must be borne in mind that this bequest is for a specified purpose, and does not aid the general funds of the College.

The council are glad to announce that five "Jenks" Scholarships, each of the present annual value of about £27, tenable for five years, have been founded under the will of the late Miss Mary Sarah Johnstone, in memory of the late George Samuel Jenks, M.D., F.R.C.P. The President and Censors of the Royal College of Physicians of London and the President of the Royal College of Surgeons of England will nominate alternately in each year to a scholarship one student about to enter or already entered at a medical school, preference being given to candidates who have been educated at Epsom College and whose course of education there has terminated within the twelve calendar months immediately preceding their nomination.

With the ever-increasing distress in the profession the council are most anxious not to have to diminish the benevolent work, and it rests with the governors whether the present obligations are to be maintained. There are very few medical men out of the 20,000 in England who could not either give a subscription annually or at least obtain one from a patient or friend; and if this effort were made in earnest the subscription list would at once reach a considerable amount. The secretary will gladly furnish applicants with copies of the prospectus and annual reports.

As evidence of the demands made upon the funds of the College and of the importance of the work carried out, it may be mentioned that in 1875, but twenty years ago, there were nine applicants for pensionerships, whereas at the election this year there were thirty-three applicants.

As a tribute to the memory of Mr. W. Freer Lucas, who

died at Middlesex Hospital of diphtheria caught from a patient, it is proposed in the future to call the Epsom Scholarship at the hospital the "Freer Lucas" Scholarship.

The council also accentuate the fact that the accommodation in the chapel is no longer adequate for the pensioners, the pupils, and the staff, and that it is absolutely necessary to put in hand immediately the requisite enlargement of the building, the cost of which will amount to about £3000. No further extension of the school can take place until this want is supplied.

CHOLERA.

ACCORDING to official bulletins there can be no doubt as to the reappearance of cholera in Warsaw and on the Polish frontier. The disease has broken out in the provinces of Plozk, Radom, and Petrokoff, in Russian Poland. There have been 20 cases, 10 of which terminated fatally, in the Russian town of Mlawa, on the railway from Marienburg to Warsaw. Between May 5th and 19th there were altogether 134 fresh cases and 78 deaths in Warsaw and the Polish frontier provinces. Later returns show that during five days ending May 26th 16 cases and 11 deaths occurred in Warsaw, and 17 cases and 7 deaths were recorded in the Ochota district of Warsaw during the past week. Several fatal cases have also occurred at the frontier town of Plozk. Telegraphic intelligence of May 29th from Breslau, through Reuter's Agency, states that some fatal cases of cholera have occurred at Myslowitz.

It is reported that cholera has broken out at Mecca. But what is more important, from its proximity to this country, is the fact that cholera has been prevalent in Brittany since last year. Our readers are referred to our annotation on the subject.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6315 births and 3543 deaths were registered during the week ending May 26th. The annual rate of mortality in these towns, which had been 18·2 and 17·1 per 1000 in the preceding two weeks, rose again last week to 17·7. In London the rate was 17·3 per 1000, while it averaged 18·0 in the thirty-two provincial towns. The lowest rates in these towns were 10·1 in Plymouth, 11·2 in Croydon, 11·3 in Portsmouth, 13·2 in Brighton, and 13·4 in West Ham; the highest rates were 21·0 in Nottingham, 21·5 in Wolverhampton, 21·7 in Huddersfield, 22·1 in Manchester, and 28·4 in Salford. The 3543 deaths included 559 which were referred to the principal zymotic diseases, against 585 and 550 in the preceding two weeks; of these, 248 resulted from measles, 128 from whooping-cough, 62 from diphtheria, 41 from scarlet fever, 38 from diarrhœa, 31 from "fever" (principally enteric), and 11 from small-pox. No fatal case of any of these diseases occurred last week in Derby; in the other towns they caused the lowest death-rates in Portsmouth, Brighton, Blackburn, and Hull, and the highest rates in London, West Ham, Salford, and Nottingham. The greatest mortality from measles occurred in Salford, Preston, Birmingham, London, West Ham, and Nottingham; from scarlet fever in Salford and Bolton; and from whooping-cough in Salford, Newcastle-on-Tyne, Sheffield, Cardiff, and Huddersfield. The mortality from "fever" showed no marked excess in any of the large towns. The 62 deaths from diphtheria included 41 in London and 3 each in Croydon, Manchester, and Bradford. Seven fatal cases of small-pox were registered in London, 2 in West Ham, and 2 in Birmingham, but not one in any other of the thirty-three towns. There were 236 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, May 26th, against 191, 210, and 219 at the end of the preceding three weeks; 69 new cases were admitted during the week, against 64, 71, and 52 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2271, against 2293, 2298, and 2307 on the preceding three Saturdays; 216 new cases were admitted during the week, against 262 and 252 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 272 and 234 in the preceding two weeks, rose again to 248 last week, but were 65 below the corrected average. The causes of 53, or 1·5 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Nottingham, Bradford, Newcastle-on-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Liverpool, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·8 and 17·4 per 1000 in the preceding two weeks, rose again to 19·0 during the week ending May 26th, and was 1·3 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Leith and 14·8 in Paisley to 20·8 in Greenock and 21·0 in Dundee. The 542 deaths in these towns included 31 which were referred to whooping-cough, 9 to diarrhœa, 6 to "fever," 6 to diphtheria, 4 to scarlet fever, 4 to measles, and 1 to small-pox. In all, 61 deaths resulted from these principal zymotic diseases, against 82 and 60 in the preceding two weeks. These 542 deaths were equal to an annual rate of 2·1 per 1000, which was 0·7 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had declined from 40 to 26 in the preceding three weeks, rose to 31, of which 12 occurred in Glasgow, 6 in Dundee, and 4 in Aberdeen. The deaths referred to different forms of "fever," which had been 7 in each of the preceding two weeks, were 6 last week, and included 2 in Edinburgh and 2 in Dundee. The 6 fatal cases of diphtheria showed a slight further decline from the numbers recorded in recent weeks, and included 3 in Glasgow. The deaths from scarlet fever, which had been 9 and 6 in the preceding two weeks, further fell to 4 last week, all of which occurred in Glasgow. The fatal case of small-pox was registered in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 110 and 89 in the preceding two weeks, were again 89 last week, and were slightly below the number in the corresponding week of last year. The causes of 44, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 20·3 and 25·8 per 1000 in the preceding two weeks, declined again to 22·2 during the week ending May 26th. During the past eight weeks of the current quarter the death-rate in the city has averaged 23·6 per 1000, against 18·2 in London and 17·5 in Edinburgh. The 149 deaths registered in Dublin during the week under notice showed a decline of 24 from the number in the previous week, and included 15 which were referred to the principal zymotic diseases, against 12 and 16 in the preceding two weeks; of these, 8 resulted from whooping-cough, 4 from "fever," 3 from diarrhœa, and not one either from small-pox, measles, scarlet fever, or diphtheria. These 15 deaths were equal to an annual rate of 2·2 per 1000, the zymotic death-rate during the same period being 3·7 in London and 1·3 in Edinburgh. The fatal cases of whooping-cough, which had been 8 and 5 in the preceding two weeks, rose again to 8 last week. The deaths referred to different forms of "fever," which had been 1 and 5 in the preceding two weeks, were 4 last week. The 3 fatal cases of diarrhœa corresponded with the number in the preceding week. The 149 deaths registered in Dublin last week included 25 of infants under one year of age, and 37 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in the preceding week. Two inquest cases and 5 deaths from violence were registered; and 57, or more than a third, of the deaths occurred in public institutions. The causes of 11, or more than 7 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-COLONEL GRAVES has re-embarked for India on return from leave. Surgeon-Major Robbins has been transferred from the Western to the Home District, and Surgeon-Major Lamprey from the Home to the North-Eastern District. Surgeon-Captain O'Donnell has arrived from India on leave. Surgeon-Captain Coldwell has been posted to Dover pending embarkation on foreign service, and Surgeon-Captain Russell to Dublin.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Maurice Knox to be Brigade-Surgeon-Lieutenant-Colonel, vice F. Ferguson, M.D., retired.

INDIA AND THE INDIAN MEDICAL SERVICE.

The following appointments are announced: Surgeon-Major H. W. B. Boyd, F.R.C.S I., to act as Physician, St. George's Hospital, Bombay, in addition to his own duties, during the absence of Brigade-Surgeon-Lieutenant-Colonel J. Arnott, M.D., C.M. (Glasg.). Surgeon-Captain E W. Hore, M.B., I.M.S. (Bengal), Officiating Medical Officer, 35th Bengal Infantry, is posted to the Medical Charge of the Bundelkhand Political Agency, in addition to his military duties. Surgeon-Captain E. R. W. C. Carroll, Officiating Civil Surgeon, Kamrup, to officiate as Civil Surgeon of Shillong. Surgeon-Captain E. C. Hare, I.M S. (Bengal), to officiate as Civil Surgeon of the Kamrup District. Surgeon-Major D. F. Barry, Civil Surgeon, Sitapur, to hold Visiting Medical Charge of the Kheri District, in addition to his own duties. Surgeon-Lieutenant-Colonel B. O'Brien, Civil Surgeon, 2nd class, Fyzabad, to officiate in the 1st class and to hold Charge of the Benares District. Surgeon-Colonel Sibthorpe to be Surgeon-General to the Madras Government. Brigade-Surgeon-Lieutenant-Colonel G Massy, Civil Surgeon, is transferred from Umballa to Murree. Surgeon-Major A. W. Carleton, M.B., A.M.S., is posted to the Medical Charge of the South Station Hospital, Secunderabad. Surgeon-Colonel C. McD. Cuffe, C.B., A.M.S., is brought on the Administrative Medical Staff of the Army. Surgeon-Major J. C. H Peacocke, I.M.D., and Brigade-Surgeon-Lieutenant-Colonel G. Bainbridge have respectively delivered over and received charge of the office of Deputy Sanitary Commissioner, Sind Registration District. Surgeon-Major F. F. MacCartie, M.B., and Surgeon-Captain J. Crimmin, V.C., have respectively delivered over and received charge of the office of the Health Officer of the Port of Bombay. Surgeon-Colonel John Richardson, M.B., Inspector-General of Civil Hospitals, North-West Provinces and Oudh, retires from the Service.

NAVAL MEDICAL SERVICE.

The following appointments are announced:—Staff-Surgeon: C. A. Macaulay to the *Endymion*. Surgeons: M. L. B. Rodd, to the *Endymion*; A. G. W. Bowen, B.A., M.B., to the *Minotaur*, temporarily; John W. Slaughter, B.A., M.B., to the *Hibernia*; and F. D. Lumley to the *Wildfire*.

VOLUNTEER CORPS.

Artillery: 1st Lancashire: Thomas Hammond, Gent., to be Surgeon-Lieutenant.—2nd (the Weald of Kent) Volunteer Battalion, the Buffs (East Kent Regiment): Surgeon-Major T. Joyce to be Surgeon-Lieutenant-Colonel.—1st Volunteer Battalion, the Cheshire Regiment: Surgeon-Lieutenant F. Peirce, M.D., resigns his commission; Surgeon-Lieutenant H. R. Preece resigns his commission.—2nd Volunteer Battalion, the South Staffordshire Regiment: Surgeon-Lieutenant T. Martland resigns his commission.—2nd Volunteer Battalion, the Durham Light Infantry: Surgeon-Captain W. Robinson, M.B., resigns his commission.—3rd (Sunderland) Volunteer Battalion, the Durham Light Infantry: Surgeon-Lieutenant M. Hunter, M.D., resigns his commission; Robert Ebenezer Beveridge, M.B., to be Surgeon-Lieutenant.—3rd (Morayshire) Volunteer Battalion, Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's): Surgeon-Lieutenant G. L. H. Milne, M.B., resigns his commission.

VOLUNTEER MEDICAL STAFF CORPS.

The Glasgow Companies: Quartermaster Hamilton Chambers Reid, M.B., to be Surgeon-Lieutenant.

THE MOBILISATION OF BEARER COMPANIES AND FIELD HOSPITALS AT ALDERSHOT.

On Thursday, May 24th, the Queen's Birthday Parade was held on Laffan's Plain, when 11,097 men of all arms took part in the ceremony before H.R.H. the Duke of Connaught, the General Officer Commanding. The Bearer Companies and Field Hospitals, of which we give details below, took part in the march past, and the occasion was a memorable one in the history of the Army Medical Staff and the Medical Staff Corps, for it was the first time that complete medical units—that is, both Bearer Companies and Field Hospitals—have taken part in such a great military spectacle. Interesting and instructive manœuvres have been held daily, a Bearer Company and Field Hospital being attached on either side to the opposing forces. H.R.H. the Duke of Connaught has shown great interest in the exercises of the different medical units and frequently visited their camps. The composition of the Field Hospitals and Bearer Companies was as follows:—

No. 3 Bearer Company: Surgeon-Major E. J. E. Risk (in command), Surgeon-Captain H. E. Deane, and Surgeon-Lieutenant F. M. Mangan.

No. 4 Field Hospital: Surgeon-Major P. J. Dempsey (in command), Surgeon-Major W. Rowney, Surgeon-Captain C. R. Kilkelly, Surgeon-Captain R. T. Windle, and Quartermaster T. Tandy.

No. 8 Bearer Company: Surgeon-Lieutenant-Colonel W. E. Saunders (in command), Surgeon-Captain R. L. R. MacLeod, and Surgeon-Lieutenant A. J. Chambers.

No. 13 Field Hospital: Surgeon-Major J. Hoysted (in command), Surgeon-Major F. H. M Burton, Surgeon-Captain H. T. Fletcher, Surgeon-Captain P. J. R. Nunnerly, and Quartermaster B. Goater.

THE BIRTHDAY HONOURS FOR THE SERVICES.

Among the list of recipients of the Birthday Honours are the names of Surgeon-General James Mouat, V.C., C.B., late Army Medical Department, Hon. Surgeon to the Queen, who has been promoted to be a Knight Grand Commander of the Bath, and Dr. Robert Grieve, Surgeon-General of the Colony of British Guiana, who receives a Companionship of St. Michael and St. George. Deputy-Surgeon-General and Honorary Surgeon-General William George Nicholas Manley, V.C., retired pay, late Army Medical Department, is to receive a Companionship of the Order of the Bath. Fleet-Surgeon William Rogerson White is to be a Companion of the Order of the Bath in recognition of his services in the recent operations against Fodey Silah in Combo on the Gambia, and Surgeon Walter Bowden, R.N., is appointed to the Distinguished Service Order for his services in the same operations.

VOLUNTEER LONG-SERVICE MEDAL.

An Army Order has been issued stating that the "Volunteer Long Service Medal" will be granted to all Volunteers (including officers who have served in the ranks, but have not qualified for the Volunteer Officers' Decoration) on completion of twenty years' service in the Volunteer force, provided that they were actually serving on Jan. 1st, 1893, and that they are recommended by their present, or former, commanding officers.

The report of the committee appointed to inquire into the entrance examinations in non-military subjects of candidates for commissions in the army has been issued as a Parliamentary paper. A majority report, signed by Lord Sandhurst, General Sir Wilbraham Lennox, Director-General of Military Education, Sir H. E. Roscoe, M.P., Mr. W. A. Hunter, M.P., Mr. J. G. Swift MacNeill, M.P., and Mr. H. J. Roby, M.P., recommends, among other things, that the regulations concerning the medical examination be revised, so that (1) the requirements as to a medical test may be clearly defined, strictly adhered to, and brought specially to the notice of parents and teachers; (2) the requirements should be framed so as to take into consideration differences of age and a due proportion between height, weight, and chest measurements; and (3) the examinations should be conducted by boards of medical officers specially selected for the purpose.

The *Broad Arrow* says:—The next important medical appointment falling vacant is that of Principal Medical Officer at Netley in July next, on the retirement, at sixty years of age, of Surgeon-Major-General Broke Smith. Surgeon-Colonel Archer, now in Nova Scotia, will probably succeed to the appointment, pending his promotion in November next, vice Giraud. The name of Surgeon-Colonel Markey, C.B., is also mentioned in connexion with the post, but, as his advancement cannot take place till April, 1895, Surgeon-

Colonel Archer would appear to be the most likely to succeed Surgeon-Major-General Smith. Surgeon-Colonel Archer will be retired by age just a year after taking up the Netley appointment.

The Bacteriological Laboratory at Mukhtesar, near Almorah, says the *Times of India*, is making fair headway. Professor Lingard, Government Bacteriologist, and Mr. Bamber, Clinical Assistant, are both there. The building is expected to cost rather under a lakh.

Owing to a recent outbreak of cholera at Chittagong, M. Haffkine has paid a visit to that place and applied his system of inoculation to a considerable number of persons—officials, European residents, and natives.

Correspondence.

"Audi alteram partem."

THE METROPOLITAN HOSPITAL SUNDAY FUND.

To the Editors of THE LANCET.

SIRS,—I am much obliged by your having allowed me to see the very interesting account that you are publishing in THE LANCET of the London hospitals and the London Hospital Fund. This account ought to have a powerful effect in stimulating the supporters of these noble charities to do their utmost for the collection to be shortly made on behalf of the fund. It will be discreditable indeed if the metropolis fails to maintain the hospitals in full efficiency. They rank among our oldest Christian benevolent institutions. We have undoubtedly made great advances in modern days in our treatment, and still more in our knowledge of diseases, in our ability to deal with accidents, in our methods of alleviating pain and enabling men to continue labour when strength and aptitude for various reasons have diminished. But when we look at our own past history, and especially at the provision formerly made for treating the sick poor, it seems as if while science had steadily advanced charity had waxed cold. It is painful to think that, whereas 200 years ago the hospitals in London could take in one sick person out of every 133 residents, the proportion is now one out of every 660. Disease has lessened, average life is longer, but men's hearts are sadly colder, and we are put to shame by our own forefathers.

I venture to hope that we may yet see a revival, not only of such splendid beneficence as that which founded and endowed St. Bartholomew's Hospital, but still more of the general interest once felt by all the citizens of this great city in the Christian work of healing the sick. Our hospitals must be counted as one of the great glories of London. Let the Londoners see to it that this glory shall not fade.

I am, Sirs, your obedient servant,

Fulham Palace, S.W., May 29th, 1894. F. LONDIN:

"THE ACTION OF ASPARAGUS ON THE KIDNEY."

To the Editors of THE LANCET.

SIRS,—Dr. Wilks, in THE LANCET of April 28th, has denounced the widely spread belief in the diuretic properties of asparagus as "a positive error, and one the very reverse of truth," and its existence he thinks "a very sad fact as regards the whole subject of therapeutics." Whatever Dr. Wilks writes is justly regarded with so much respect that his view will probably be readily accepted by many without further investigation. Before, however, they do so, I would ask leave to state the results that have followed my application of the maxim, "Fiat experimentum," &c. Choosing four separate, not consecutive, days when I was at liberty to follow precisely the same *régime* of eating and drinking, removed by at least twenty-four hours from any such disturbing effect as "dinner parties," to which one of your correspondents refers, I added on two of those days to my diet, in other respects precisely the same, some asparagus, and I carefully measured the excretions of urine on each of the four days for purposes of test and comparison, and with the following results. On April 28th to 29th, having eaten about fifteen heads of asparagus the night before, and the same quantity at a midday meal, I measured the urine passed in twenty-four hours—viz., from 8 A.M. to 8 A.M.: the total amount was 50 oz., and the density varied from 1012 to 1028, the average being 1020. On April 30th to May 1st, having eaten and drunk in precisely the same manner, but without any asparagus, and having measured the urine passed within a like period, I found the total amount was 31½ oz., the density varying from 1021 to 1029, the average being 1025. On May 2nd to 3rd I ate asparagus as before, and again carefully measured the urine passed between the same hours: the total amount was 54½ oz., and the density varied from 1012 to 1023, the average being 1018. On May 5th to 6th I again measured the urine passed in a like period, adhering to the same diet, but without asparagus: the total amount passed was 35½ oz., and the density varied from 1018 to 1025, and the average was 1022. I ought perhaps to add that the total amount of beverage I habitually take daily does not exceed 35 oz. to 40 oz. To resume: on the two days I took asparagus I passed respectively 50 oz. and 54½ oz. of urine of an average specific gravity of 1020 and 1018; on the two days I took no asparagus I passed respectively 31½ oz. and 35½ oz. of an average specific gravity of 1025 and 1022. So that, if I may be permitted to set my own personal observations over against those of Dr. Wilks, they rehabilitate the reputation of asparagus as a diuretic. But in order to exclude any personal bias in favour of either opinion I asked Mr. W. Turner (Professor Rose's house surgeon) to be good enough to test this question on two suitable surgical patients, and he kindly did so on two male patients who were both laid up in bed with fractured legs in King's College Hospital. The diet remained precisely the same; the average daily excretion of urine was estimated for three days before and for two days during and after eating asparagus. The following are the results: 1. A. B——, aged thirty-six: average amount of fluid consumed daily, 56 oz.; average daily excretion of urine before eating asparagus, 53 oz.; average daily excretion with asparagus, 61½ oz.—a balance or excess of 8½ oz. in favour of asparagus. 2. C. D——, aged fifteen: average amount of fluid consumed daily, 36 oz.; average daily excretion of urine before eating asparagus, 32 oz.; average daily excretion with asparagus, 41½ oz.—a balance or excess of 9½ oz. in favour of asparagus.

Such, then, is the effect of the addition of asparagus to the diet of persons with presumably healthy kidneys; and from these observations I think we are justified in accepting the common belief that the physiological effect of asparagus is to increase the flow of urine; but diuretic drugs are notoriously uncertain in their action. I have taught this for many years, and I am sure Dr. Wilks must have taught the same; it would, therefore, be very rash to condemn any so-called diuretic because it failed to have a diuretic effect in any particular person or case, such an occurrence being common with all diuretics. To descend from the region of experiment to that of authority: I find my late regretted colleague, Professor Bentley, who was most cautious in his expression of opinions, goes out of his way in his "Manual of Botany" to make the following statement: "The juice of asparagus has marked diuretic properties, and is *deserving of more attention than it has of late years received*" (p. 680). Dr. Lauder Brunton, I observe, classifies asparagus amongst the stimulating diuretics, though he falls into the error of speaking of it as one of the Cruciferæ; it belongs to the natural order Liliaceæ. I have said in my own book on 'Food' (fifth thousand, p. 96) that asparagus "contains a peculiar crystalline principle, *asparagin*, which possesses diuretic properties," and I am not disposed to admit that this is "a positive error and one the very reverse of truth," or that there is anything "sad as regards the whole subject of therapeutics" in holding this belief.

I am, Sirs, yours truly,

I. BURNEY YEO, M.D.

Hertford-street, Mayfair, May 25th, 1894.

"THE USE OF THE TOES."

To the Editors of THE LANCET.

SIRS,—I will not object to Mr. Ellis's advocacy of the usefulness of the toes, and hope he may succeed in inducing shoemakers and fashion to increase the range of that usefulness. To the question in his letter in the last issue of THE LANCET I may reply that some movements are permitted to them even when leather-bound, and more when they are free. These are sufficient to prevent atrophy of their

muscles, which, be it observed, have the further office of aiding the movements of the ankle and tarsal joints.

I am, Sirs, yours faithfully,

Cambridge, May 26th, 1894. G. M. HUMPHRY.

"MENTAL THERAPEUTICS."

To the Editors of THE LANCET.

SIRS,—My previous remarks in THE LANCET,[1] written with a view to call attention to the much-neglected subject of Mental Therapeutics, received great point from an annotation in the same number on the "Immunity of Quackery." The writer, speaking of the failure of a recent prosecution, alludes to the "remarkable licence" that quacks enjoy. He points out what a ridiculous state of affairs it is that the public persistently continue to have recourse to quacks when they have the whole medical profession at their service. He goes on to say that the eulogy of grateful patients, though given in good faith, cannot be depended upon; for, he proceeds to point out, "there are no limits to the imagination of the hypochondrial and hysterical subject." Now, in all this the writer does not say why quacks still flourish at the close of the nineteenth century, nor why, in this educated period, they are as numerous, or more so, as in the dark ages, and can still undoubtedly produce large numbers of genuine cures. If the common sense of the public has not yet enabled this enlightened body to sufficiently distinguish between the value of the regular orthodox practitioner and the opposing army of quacks, special "pathists," and faddists of all sorts, whether counts or commoners, it is to be feared that there is rather a poor prospect of their ever doing so as long as matters are as they are. The public, curiously enough, set a far higher value on a "cure" than the trained professional man. With him, we may, I think, assert, interest centres in the diagnosis of the disease, and it is to this point that the most careful teaching and training are directed. We do not say that to most it is the "end"; but it is certainly a very prominent "means" indeed to it, and necessarily so. The public, and with them the quacks, care little about the diagnosis, for which they have neither learning nor interest; what they do look for is the cure, which, alas, is often effected without any diagnosis at all, though not without grave risk to the patient for want of it. As long, therefore, as quacks cure diseases, so long will the public employ them; and no amount of Carlylean quotations as to the number of fools in the world or contemptuous classification of the cured diseases as imaginative will alter their attitude.

What requires to be done, and what must come to pass before long, is the recognition by the medical profession that the secret of the perennial vitality of quackery is that it has used (no doubt ignorantly) what the medical profession has so systematically ignored (at any rate in its teaching): the value and the curative power of mental therapeutics. I have looked again through many leading books on medicine and therapeutics, but neither in Ziemssen nor in Hare (as representing the latest American views), nor in any other standard work, can I find this subject fairly considered and discussed. A volume called "Suggestion in Therapeutics," from Nancy, shows the use of the mind as a curative agent when under hypnotic suggestion, but we want far more than this. The subject is of a size and growing importance to deserve far fuller and more serious consideration than it has yet received. Here and there great masters in medicine have seen the enormous value of mental therapeutics, but the subject has never been followed up, save for the sake of filthy lucre by quackery. Unzer (quoted by Tuke), in 1771, says: "Expectation of the action of a remedy often causes us to experience its operation beforehand." I have just received a remarkable illustration of this, however, that goes far beyond this statement. A colleague of mine gave a woman the other day some opium pills to produce sleep, but forgot to tell her their object. Last week she told him the pills had opened the bowels well each morning, but had griped her a little. On inquiry he found that she had had no better sleep. Another woman thought she had taken a large dose of rhubarb as a remedy for constipation and soon had five or six movements of the bowels. She discovered afterwards that she had forgotten to take the medicine.

Hunter says: "I am confident I can fix my attention on any part till I have a sensation in that part," while Johannes Müller affirms that "it may be stated as a general fact that any state of the body which is conceived to be approaching or expected with certain confidence will be very prone to occur, *as the mere result of that idea*, if it does not lie beyond the bounds of possibility." Now this is true with regard to producing cures as well as in producing diseases, and, though I desire to write impersonally and suggestively, I may, perhaps, be allowed to adduce briefly the following remarkable instance of this. A girl aged sixteen was brought to me with strong left convergent strabismus and diplopia and slight ptosis, with total bilateral loss of taste and smell for years, proved to be complete by careful experiment, with deafness (watch not heard at three inches from either ear) and strong spastic contraction of the left arm and hand, proceeding to rigidity and wasting of some months' standing, and some stiffening of the left hip-joint. This girl had had for months every possible ocular and general treatment, including massage, with absolutely no improvement of any symptom, the arm especially becoming more and more rigid. Confidence being gained, simple methods, inefficient in themselves, but forming vehicles through which the mind could act, proved perfectly efficacious in completely restoring taste and smell, in entirely restoring the use of the arm and leg, in removing deafness, so that the patient's hearing became unusually acute, and in curing the strabismus and diplopia. I therefore submit that a therapeutic agent that can effect such results which have defied regular treatment directed by skilled specialists deserves a recognised place in our teaching and in all hospital clinics, for there is scarcely a single disease where it may not be advantageously used.

I am, Sirs, yours faithfully,

ALFRED T. SCHOFIELD, M.D. Brux.

Westbourne-terrace, W., May 11th, 1894.

[1] THE LANCET, Feb. 3rd, 1894.

ADENOMA OF THE BREAST IN YOUNG CHILDREN: TREATMENT OF RETRACTED NIPPLES.

To the Editors of THE LANCET.

SIRS,—In Mr. Paget's lecture on Diseases of the Breast he says: "Adenoma, so common after puberty, never comes before that time." I think Mr. Paget must have overlooked the fact that several cases of adenoma mammæ in infants and young children—duly verified histologically—have lately been recorded. In Hopkins' case a tumour of this kind, the size of a chestnut, having been removed from the right breast of a girl seven years old; soon afterwards a similar tumour began to form in her left breast, which, in the course of two years and a half, attained as large a size as the original tumour. Patteson, a short time ago, fully reported two cases of adenoma of the breast in girls between twelve and thirteen years old. Velpeau met with an instance in a girl eight years old. Bryant mentions having seen an adenomatous nodule in the breast of a male child only ten months old; but as the tumour in this case contained fatty, as well as fibro-adenomatous tissue, it most probably really was an instance of induratio benigna, due to chronic mastitis, for fatty tissue never enters into the formation of fibro-adenomata. In my forthcoming monograph on Diseases of the Breast I have discussed these cases more fully. In the same number of THE LANCET a correspondent inquires as to the best treatment for retracted nipples that after a previous confinement had caused much trouble. Supposing that methodical treatment by traction, buccal or other suction has failed, mammillaplasty would be indicated. A circular strip of skin, together with the subjacent fibro-fatty tissue, is excised from the prominent cutaneous fold surrounding the depressed nipple; or instead of a circular strip two crescentic pieces may be removed. Care should be taken to avoid injuring the subjacent ducts; this will be rendered almost impossible by keeping the incisions external to the areola. By suturing together the opposite cut surfaces of the mammillary and mammary skin, the nipple will be pulled into its proper position. If your correspondent makes use of this method (which seems to me to be a good one) I hope he will report the result, for the operation has seldom been done in this country. In a case reported in THE LANCET some time ago by Herman permanent cure resulted.

I am, Sirs, yours truly,

Preston, May 18th, 1894. W. ROGER WILLIAMS.

THE RIGHTS OF MEDICAL PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—Some time ago Mr. Bryant delivered a most excellent lecture on some points of medical practice, notably our relation to Medical Aids and Midwives. May I say that as a provincial medical practitioner, and therefore a victim of that spirit of rivalry mentioned by Dr. Wilks, I was delighted with the tone of Mr. Bryant's speech. It was the first time I had known a London surgeon of the highest standing take a practical interest in these questions. The London consultant, as a rule, stands aloof from such matters. He is willing to see our patients at two guineas a consultation. He is willing to perform an operation for us for a hundred guineas, and attracts to himself the wealthier portion of the community by his greater scope of practice in the hospitals, and his position in a medical school. As a rule he cares nothing that his profession is degraded by a system of low contracts, by which the public are taught that a medical attendance is worth about twopence or threepence. He fails to see that in time the consultant will also be asked to contract for his services, and that by his foolish refusal to stand shoulder to shoulder with his provincial brothers he is slowly but surely thinning the cord by which a sword is suspended over his own neck. Degrade the position of one medical man and all must suffer. Teach the British public that medical service is worth little, they will demand medical attendance at their own price, and we shall cease to be allowed to estimate in any way the value of our work. Lawyers are wiser than we. They know their profession must stand or fall as a whole, and that each one is a part of the whole. Mr. Bryant has spoken out more clearly than any other of his class, and I much regret the small support he appeared to receive in the Council. I hope he will not be discouraged in his unselfish championship of the just rights of medical practitioners; but will strike again, and harder, at the apathy of the Council. If the General Medical Council cannot represent us on matters such as these, it is quite time it should be disestablished and disendowed, and some more practical body elected by the vote of the profession. The general practitioners are the backbone, as they are the majority, of the profession, and they require a fuller representation on the Council than they have at present. They require that questions which to them are of interest and importance shall not be shelved or evaded by "weak-kneed resolutions" The Council must awake to this fact, as it has awoke to others, and must learn that it will have to be something more than a mere debating class as to the amount of preliminary education necessary for the average medical student. For many years it filled that *rôle;* lately it has been more active, but it still needs the pressure of the democratic vote.

I am, Sirs, yours truly,

May 29th, 1894. J. B. PIKE.

"DIPHTHERIA AT THE LEAVESDEN SCHOOL."

To the Editors of THE LANCET.

SIRS,—Referring to the annotation appearing in your issue of the 5th inst. with reference to the late outbreak of diphtheria at the St. Pancras Schools at Leavesden, and the report thereon prepared at the request of the guardians by Dr. J. F. J. Sykes, the medical officer of health of St. Pancras, I am desired to intimate that the comments upon the attitude of the guardians in relation to the precautions necessary to preserve the health of the children may lead to a mistaken judgment. The guardians wish to correct a possible inference, directly conveyed, that they have not only crowded the schools regardless of consequences but have persistently refused to give attention to their medical officer's advice on that point. The guardians have always well recognised the abilities and services of Mr. Adams Clarke, the medical officer of the schools. It is the custom for him to attend every meeting of the schools visiting committee, and he, on his part, must be willing to admit that the committee have taken the keenest interest in his reports and sugggestions, to which they have constantly attached paramount importance, and the committee have, in many instances, taken the initiative in steps for the better classification of the children, and in improved arrangements for the treatment of the sick; and Mr. Clarke is invariably consulted on all matters in which his responsibilities are concerned. The guardians regret very much that the observations made upon this unprecedented visitation by diphtheria at their schools in your much quoted journal for the guidance of the medical profession, might also convey a misleading impression as to the management and general condition of the schools. It is true that during a few weeks last winter the total number of children exceeded the certificate (678), but it was quite an exceptional occurrence, and at that time there was no available accommodation at other schools. In dealing with the large number of children then chargeable choice therefore lay only between the contracted and otherwise imperfect accommodation for children at the workhouse of the parish (the reconstruction of which is still incomplete), and the schools at Leavesden, situated in the open country, with facilities for isolation. It should also not be forgotten that at the time diphtheria appeared at the schools it was epidemic in the metropolis. The cause of the outbreak at the Leavesden Schools could not be traced, even by experts, with absolute certainty. In the report by Dr. Sykes, he pointed with reserve to various possible sources of infection; but apparently emphasised his opinion that in one or two sections of the school the ventilation had become curtailed by the additional means of heating the dormitories and class-rooms. The better heating of those rooms had been adopted upon suggestions made to the guardians for the benefit of the children of low vitality, and with beneficial results to children of that class. This points to one of the oft-recurring puzzles of ventilation, so difficult to solve where the health conditions of the occupants of the rooms are so varied.

Several valuable suggestions arising out of the report by Dr. Sykes have since been promptly adopted. The guardians have many reasons to be proud of their splendid establishment at Leavesden, as the annual reports upon the results of their management will show. I enclose copies of the last three years' reports, containing, *inter alia*, tabular statements, by which it will be seen that with a general population of upwards of 600 children, the average number of deaths has been less than 6 per annum; and in nearly every instance the cause of death has been unconnected with the influence of the school. I am, Sirs, yours faithfully,

ALFRED A. MILLWARD,
May 28th, 1894. Clerk to the Guardians.

THE LATE MR. CHARLES CLAY OF MANCHESTER.

To the Editors of THE LANCET.

SIRS,—The representatives of this distinguished surgeon have placed at my disposal a mass of material for the preparation of a suitable memorial of him, including an autobiographical sketch of much interest. Unfortunately, the material is deficient in that period of his life which is of greatest interest—between 1842 and 1850. A still greater misfortune is that the great age to which Mr. Clay lived has left few who can tell much about him at that time. My own efforts by private inquiry have failed so far, and I am therefore compelled to trespass on your courtesy for permission to ask through your widely-read columns that any who may be in possession of documents or recollections of Charles Clay would be good enough to put me in possession of them I am, Sirs, yours faithfully,

7, The Crescent, Birmingham, May 29th, 1894. LAWSON TAIT.

"THE SURREY DISPENSARY AND ITS STAFF."

To the Editors of THE LANCET.

SIRS,—As Dr. Ince's second letter in THE LANCET of May 19th is very misleading I will, with your permission, reply to it briefly. The rules as to visiting home-patients in force now and for many years past say that the physicians and surgeons "shall visit home-patients when required"; that "the resident medical officer shall visit all new home-patients, to ascertain the nature of their cases, then report upon the same to the physicians and surgeons, he retaining those cases which they may consider do not require their attendance"; also, "he shall be held responsible for the home-patients being seen regularly and systematically." This is 'the arrangement" which Dr. Ince says *I allege* was mad by the managing committee some years ago and

which, if it existed, "would be a breach of faith towards the subscribers who are led, by the rules, to believe" that the physicians and surgeons visit the home-patients, and who are therefore "entirely deceived." Dr. Ince then finds fault with our figures, and says that 25 per cent. of our so-called new patients are what are called "renewals," and ought, therefore, to be deducted from the total number of patients for the year. But a renewed letter is equivalent to a new case, because a subscriber has the option, at the end of each month, of either renewing it or giving a new one to another patient. In either case a fresh entry is made in the book, and, of course, to the medical attendant the work is the same whether a letter is used by one patient for twelve months or by twelve for one month. As regards the Finsbury Dispensary, the district, I believe, is much smaller and the gratuity larger than at the Surrey Dispensary. Our patients occupy a circle four miles in diameter, and it might take four hours to visit ten or twelve of them, whereas at the Public Dispensary (as I know from having done the work) they live within half a mile, most of them within a quarter, and the same number could be visited in less than two hours.

Dr. Ince next asks us to *imagine* the state of things at the Surrey Dispensary to exist at Guy's Hospital—a feat to which my imagination is quite unequal. At the latter the patients are all within its walls; at the former they are scattered over a circle whose diameter is four miles. Guy's Hospital is a school, and the patients are object-lessons for teachers and pupils. The Surrey Dispensary is not a school, but a charity, and the patients are not selected typical cases for clinical teaching, but for the most part such as would not be admitted at Guy's Hospital—cases of phthisis, chronic bronchitis, chronic rheumatism, chronic heart disease, chronic dyspepsia, measles, old age, and starvation. Our resident medical officer is not house physician or surgeon to any hospital, but he has been both, and has held responsible public appointments since, so that he is as competent to diagnose and treat disease as the physicians and surgeons themselves. On all points, therefore, Dr. Ince's comparison of our dispensary with Guy's Hospital is a complete failure, as all comparisons of totally dissimilar things must be.

I am, Sirs, yours truly,

D. HOOPER, B.A., M.B. Lond.,
Physician to and Life Governor of the Surrey Dispensary.

Trinity square, S.E., May 21st, 1894.

P.S.—The number of visits to home-patients for the year ending April, 1894, was 4204.

*** We have received from Dr. Ince, in support of his letters, a copy of the rules of the Surrey Dispensary, and other communications upon the subject, but pressure upon our space precludes us from admitting further correspondence on the subject to our columns.—ED. L.

THE LEWISHAM LUNACY CASE.

To the Editors of THE LANCET.

SIRS,—It will be within the recollection of your readers that at the time the inquiry was being held at the instance of the Local Government Board Mr. J. M. Williams made numerous charges affecting the conduct of Messrs. Duke and Beaumont. In dismissing with costs yesterday the action brought against these two gentlemen Mr. Justice Wills said (I am quoting from the transcript of the shorthand notes of the judgment), "but it seems to me their [the defendants'] proceedings were marked by humanity and by deliberation, and anything but a hasty or impatient consideration of the case." In justice to my clients I will ask you to give currency in your columns to this expression of judicial opinion.—I am, Sirs, your obedient servant,

THOS. J. SAVAGE, Defendants' Solicitor.

Ludgate-hill, May 25th, 1894.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Library at the Liverpool University College.

AT the half-yearly meeting of the Court of Governors of the Liverpool University College it was stated *inter alia* that all the shelves in the galleries of the library were now stocked with books. These have been purchased with the sum generously presented to the College by Mr. Henry Tate, which was alluded to in a previous letter. The benefits of the gift have been distributed, as far as possible, proportionately over all the departments of learning, and are highly appreciated alike by the professors and students.

Suicide at a Police Station.

On May 18th a man asked one of the keepers of Sefton Park to take him to Lark-lane Police Station, which the keeper did. On arrival at the station the man, who appeared to be in drink, told the inspector he wanted protection. He was kept in the office and an officer was sent to his residence to inform his relatives where he was. While the officer in charge of the office was writing at the desk he heard a peculiar sound behind him, and turning round saw the man cutting his throat with a pocket-knife. He at once took the knife from him, and, seizing the wounded vessel, held it till the arrival of Mr. Taplin, but the deceased died in a few minutes. At the inquest the jury returned a verdict of temporary insanity.

H.M. Prison, Walton, and Executions.

The building now known as H.M. Prison, Walton, was erected as the borough gaol of Liverpool on land which was bought in 1847 at a cost of £288 per acre. It was not completed till 1855, the prisoners being removed to it on Sept. 1st. It has never been the scene of any public executions, which took place outside the county gaol at Kirkdale, nor did any execution occur until a few years ago, when Elizabeth Berry was executed for the murder of her daughter by poisoning her with sulphuric acid. In consequence of Kirkdale Gaol having been closed all executions now take place at Walton in a place recently constructed for the purpose, with all the improvements suggested by the Royal Commissioners appointed to inquire into the subject some years ago. It was used on May 22nd for the execution of a man convicted at the last assizes of the wilful murder of his paramour. The prisoner and his victim both lived in Walton, and it is to be hoped that his fate and that of the woman executed last month for the murder of her husband will deter others from committing such atrocious crimes. All the executions within Walton Prison have passed off without any difficulty or accident.

Hospital Saturday.

Hospital Saturday has come and gone. The result is not known as yet, but it is hoped that the total of the Sunday and Saturday Funds may equal that of last year. More cannot be expected in the present depressed condition of trade and commerce. The Saturday collection was changed from January to May in the expectation that the brighter and warmer weather would, by lessening the expense of fires, leave working men with more to contribute, but the cold of the present month has been quite exceptional.

May 28th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday.

STRENUOUS efforts have been made on this occasion to exceed the collections of previous years. Owing to the opening of Marle Hall, Llandudno, as a convalescent home for women, additional interest was manifested in the endeavour to raise a sufficient surplus for the maintenance of this establishment. Over 400 ladies gave their services at stands in the streets and railway stations. The day was cold, wet, and unpropitious; the lack of sunshine did not diminish the zeal of the collectors, but their persistency seemed to show itself in proportion to the severity of the weather. A sense of duty prompted them to defy the elements and to increase their zeal as difficulties arose. The total amount now stands at £10,675 2*s.* 4*d.*, as against £10,633 17*s.* 10*d.* collected up to the corresponding period of last year. The number of subscribers who have paid this year is 1337, as against 1376 last year. The hope is expressed that as the remaining subscribers pay in their amounts a substantial increase will be shown.

Medical Benevolent Society.

The seventy-second annual meeting of this society was held on May 25th under the presidency of Dr. Wyer of

Leamington. The report stated that the invested funds amounted to £11,893. Fifteen annuitants were on the books at the commencement of the year, this number subsequently being reduced to thirteen by the death of one and the marriage of another. The annual value of the grants ranged from £20 to £40, the total sum thus expended being £460. The number of members in the society was 333, and it was pointed out that this represented a very small proportion of the number of medical men in the midland counties. The existence of an active and well-managed society ought to evoke a response among those whose more fortunate lives would little miss the sum of one guinea a year towards such worthy objects. Various votes of thanks were passed and the officers elected for the ensuing year.

Death from Uncooked Food.

A learned physician has lately devoted his talents to a series of lectures on dyspepsia in women. It is to be feared that there is a large class to whom the information would be valuable if it could reach them. Here is an instance the facts of which were elicited at an inquest held on the body of a woman aged twenty-two by the city coroner. Having been unwell for a month or more she partook of a quantity of raw haddock for her supper; afterwards she was seized with severe abdominal pain and died during the night. A post-mortem examination revealed inflammation of the stomach and upper portion of the bowels. The verdict of the jury afforded but poor consolation—to the effect that death was due to the eating of indigestible food—namely, uncooked haddock.

Nursing Developments.

A sum of £4000, increased by various means until it now stands at £8331, was originally bequeathed for the establishment and endowment of a provident dispensary in Nechells, a district of the city. Since that date a branch of the general dispensary has been erected at Nechells, so it has been arranged to form a scheme for nursing instead. The inhabitants of this locality are desirous that the whole of the trust should be for their own benefit, and protest against the diversion of the funds. Time will show the importance and weight of their opinion.

Cheap Oil Lamps.

The chairman of the Watch Committee, at a meeting held on May 29th, stated that it was proposed to send a letter to the Home Secretary calling attention to the number of fatalities that had occurred from the use of cheap lamps, and request that some steps might be taken to restrict the sale of cheap glass lamps and increase the flashing point of paraffin. Domestic legislation might prove of value, and throw light on the causes of these injuries and fatalities. Some are no doubt accidental, many arise from the use of the lighted lamp as a weapon often hurled by a drunken husband at his wife with the intention of evil.

May 29th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle-on-Tyne Old and New.

OWING to the increasing traffic in Gallowgate, it has become again one of the main streets, as it was of old, and the Corporation have obtained an Act of Parliament to widen it for a tram route. The alteration will necessitate the removal of remains from one of our oldest churchyards (St. Andrew's). The church is supposed to be about 1000 years old, but there have been no interments since the cholera year 1853, many of its victims being buried there. For this reason the vicar and some of the inhabitants objecting to the removal of the remains the Secretary of State sent down Dr. Hoffman to hold an inquiry and report. Our medical officer of health, Dr. Armstrong, gave his opinion that there would be no danger in the disinterment and removal to a suitable cemetery, after hearing which Dr. Hoffman said that he would report favourably as to the alteration.

Darlington Improvements: the New Park.

Colonel C. H. Luard, R.E., has held an inquiry at the Darlington Town Hall on behalf of the Local Government Board into applications by the Darlington Town Council for sanction to borrow £5000 for providing a recreation ground for the north end of the town.

The Health of Sunderland.

Official inquiries lose much effect by their tardiness. It is stated that the Local Government Board having become somewhat anxious at the large number of cases of typhoid fever and diarrhœa which occurred fatally in Sunderland last year have sent one of their medical officers to inquire into the cause. Dr. Thomson has paid visits of inspection to the town, and meantime the health of Sunderland is good, as evidenced by its very low death-rate.

The Sanitary Condition of Tebay.

A report from the medical officer of health was laid before the east ward rural sanitary authority at Kirkby Stephen at its last meeting on the condition of Tebay. The village was declared to be the most insanitary one in the union, and a general system of sewerage was recommended.

Ambulance Work in the North.

Dr. Anderson of Seaton Delaval has inspected a large class of ambulance students at Newsham-station and found them very efficient, reflecting credit on their instructor, Dr. Manners.

Handsome Gift by a Cumberland Gentleman.

The sum of £500 has been given by Mr. R. Heywood Thompson of Nunwick-hall, Penrith, to endow a bed in the Liverpool Convalescent Institution at Woolton in memory of his father, the late Mr. S. H. Thompson of Thingwall-hall.

Hospital Sunday at Stockton.

On Sunday last collections were made in the places of worship at Stockton, Thornaby, and district in aid of the Surgical Hospital. It was stated that the patients treated during the past year numbered 2477, being an increase on the previous year. There had been a falling off in the receipts owing to the works being closed.

Fatal Morphia Poisoning Case at Darlington from a Druggist's Cough Mixture.

On Monday last an inquest was held on a child aged who died from morphia poisoning. It appears that the child took about five teaspoonfuls of a cough mixture made by a druggist, and containing about a twelfth of a grain of morphia in each drachm. The jury returned a verdict of accidental morphia poisoning, and added a rider that druggists should put a label on bottles stating that morphia was an ingredient.

Lord Armstrong and Bamborough Castle.

The news that the sale of Bamborough Castle and adjoining lands to Lord Armstrong had received the sanction of the High Court of Chancery on Monday last has been received in the north with much satisfaction, seeing that Lord Armstrong has stated his intention to devote the historic fortress to a home for convalescents and the estate for its endowment.

Newcastle-on-Tyne, May 30th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Queen's Birthday Honours.

THE intimation that Her Majesty had conferred the honour of knighthood upon two citizens of Edinburgh has naturally been a cause of gratification to the city at large. Lord Provost Russell, who is a graduate in arts, medicine, and science, and inspector of anatomy for Scotland, occupies the civic chair with so much acceptance that everyone is pleased with the honour bestowed on him. Professor Grainger Stewart is so well known to the profession that it is needless to say that this recognition of his position in the Edinburgh school and in medicine is gratifying to his colleagues and his friends.

The Royal Society of Edinburgh.

The Royal Society of Edinburgh has awarded one of its medals to Professor T. R. Fraser of Edinburgh University for his work on Strophanthus.

Small-pox in Scotland

No new cases have occurred in Glasgow during the past fortnight. In Coatbridge, however, the disease is not yet stamped out, and in Leith and Edinburgh the outbreak is assuming very serious proportions. A really alarming

outbreak has occurred at Leith, no less than sixty-one new cases having been notified during last week. Of these, forty-six occurred in South Leith and fifteen in North Leith. As a small consolation it may be noted that in fifty-eight cases in hospital only one death has occurred. On Tuesday last Dr. Littlejohn stated that eighteen cases had been notified in Edinburgh. In a letter to his committee on the subject he pointed out the close relationship of Edinburgh and Leith, and the consequent danger of the spread of small-pox from the latter to the former. A large proportion of the Edinburgh patients had attributed their infection to Leith, and, in Dr. Littlejohn's opinion, the time had come when the Edinburgh town council should call on the Leith authorities to adopt the Notification Act without further delay. In commenting on the letter, Lord Provost Russell said he did not understand why Leith should stand out as a seceder from a course which had been so generally followed by the large cities in the kingdom.

May 30th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons.

ON Monday next, June 4th, the annual elections for office-bearers will take place. Mr. W. Thornley Stoker will be elected president, Mr. William Thomson vice-president, and Sir Charles Cameron secretary without opposition. Besides the names of candidates mentioned for the Council last week I now add the following—viz., Messrs. A. H. Jacob, R. D. Purefoy, J. J. Cranny, J. H. Scott, and Arthur Chance. There will be twenty-five candidates for nineteen places. Mr. Hamilton, who retires from the presidency, will not go up for the Council, neither will Dr. Kidd.

Eye, Ear, and Throat Hospital, Cork.

The subscriptions towards the building fund of this hospital amount to £2261 15*s.* 8*d.*, which is less than one-half of the total sum required. Sir John Arnott heads the list with the handsome donation of £500. It is intended to build on the site of the present premises a commodious and well-equipped hospital which will provide ample accommodation and be as efficient as institutions of a similar nature in Belfast. It is confidently expected by the promoters that funds will be obtained from a larger area than that of the county of Cork.

The Belfast Royal Hospital.

At the quarterly meeting, held on May 28th, it was reported that during the past three months 617 intern (258 medical and 359 surgical) and 4613 extern patients had been treated. The expenditure for the eight months ending April 30th has been £6010 10*s.* 11*d.*, and the receipts from all sources £6817 0*s.* 2*d.*, showing an excess of income over expenditure of £806 13*s.* 3*d.*, and, after deducting a debt of £145 13*s.* 1*d.* carried forward from last year, a balance is left in favour of the hospital of £661 0*s.* 2*d.* at the end of the quarter. Dr. Colville has been appointed house surgeon (vice Dr. Davidson resigned), and Dr. T. S. Kirk has been elected house physician.

Extension of the Belfast Royal Hospital.

Owing to the great increase in the number of out-patients, it has been found necessary to enlarge the accommodation of this department. A new wing, which is practically a continuation of the present waiting-room, is being built. It is divided into five compartments for the surgeons and physicians in charge of the extern department.

The Queen's College, Belfast, Students' Union Fête.

The great Students' Union Fête and Bazaar was opened on Wednesday, May 23rd, by the Marquis of Londonderry, and has been a very marked success. The weather was fine, the attendance was large, and the utmost enthusiasm prevailed both among professors, students, graduates, and those ladies and gentlemen who gave their services to make the fête a success. The students themselves take charge of a great many of the out-door amusements. The sum realised has not yet been accurately ascertained, but it is hoped it will be sufficient, with what already has been subscribed, to erect the new Students' Union Buildings. The Bazaar and Fête closes on Tuesday night, having been opened for six days.

May 28th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Treatment of Bright's Disease with Renal Extract.

THE late Dr. Brown-Séquard maintained that the real danger in albuminuria consisted in the fact that the internal secretion of the kidney was suppressed, such secretion possessing the property of either neutralising the toxines generated in the system, or contributing to the elimination of these noxious products of metamorphosis. An attempt has recently been made to verify this view by MM. Teissier and Frenkel of Lyons, by the employment on patients suffering from nephritis of subcutaneous injections of glycerine extract of kidney tissue obtained by macerating the triturated renal substance in a 10 per cent. mixture of glycerine and water. This preparation is quite inoffensive; 20 c.c. of it per kilogramme of the body-weight of the animal experimented on may be introduced either into the areolar tissue, or into the veins without determining any trouble. When, however, the dose per kilogramme of body-weight is increased to 100 c.c., death ensues rapidly with intense dyspnœa, nystagmus, and convulsions. Of the two patients subjected to the treatment one had typical interstitial nephritis with the usual complications (œdema, cardiac trouble, &c.), and the other suffered from what is denominated dyscrasic albuminuria. For three days prior to the injections, the two women were put upon a rigid milk diet. During this period, a complete quantitative analysis of the urine was made, their degree of toxicity was estimated, the density of the blood noted, as also its richness in red-and-white blood-corpuscles. Two c.c. of renal extract were injected once daily for the first two days; then the same quantity was injected twice a day for three more days. The urine and blood analyses were continued during the five days of the treatment and also for the three following days. The results were: quantity of urine voided unchanged; no change in the density or corpuscular richness of the blood, but a slight increase of arterial pressure; a slight increase in the quantity of urea passed, no increase in the elimination of chlorides, but a decided rise in the quantity of phosphates and an increase in the urotoxic coefficient, which was now 0·252 instead of 0·205. This increased toxicity of the urinary secretion was proved by the myosis produced by the injection from the second day of treatment of only 60 c.c. of it into the rabbit, which phenomenon was hardly perceptible when 340 c.c. was injected previously to the treatment. This increased elimination of the products of retrograde metamorphosis through the diseased kidney is, indeed, the most notable effect produced by this new therapeutic method. Add to this the improvement in the general condition of both patients and a case appears to be made out in favour of further trials in this direction. It must not be forgotten that Professor Dieulafoy of Paris has already experimented in his wards with extract of renal tissue. The trials, however, have, so far as my knowledge goes, not been persevered with.

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Leamington. The report stated that the invested funds amounted to £11,893. Fifteen annuitants were on the books at the commencement of the year, this number subsequently being reduced to thirteen by the death of one and the marriage of another. The annual value of the grants ranged from £20 to £40, the total sum thus expended being £460. The number of members in the society was 333, and it was pointed out that this represented a very small proportion of the number of medical men in the midland counties. The existence of an active and well-managed society ought to evoke a response among those whose more fortunate lives would little miss the sum of one guinea a year towards such worthy objects. Various votes of thanks were passed and the officers elected for the ensuing year.

Death from Uncooked Food.

A learned physician has lately devoted his talents to a series of lectures on dyspepsia in women. It is to be feared that there is a large class to whom the information would be valuable if it could reach them. Here is an instance the facts of which were elicited at an inquest held on the body of a woman aged twenty-two by the city coroner. Having been unwell for a month or more she partook of a quantity of raw haddock for her supper; afterwards she was seized with severe abdominal pain and died during the night. A post-mortem examination revealed inflammation of the stomach and upper portion of the bowels. The verdict of the jury afforded but poor consolation—to the effect that death was due to the eating of indigestible food—namely, uncooked haddock.

Nursing Developments.

A sum of £4000, increased by various means until it now stands at £8331, was originally bequeathed for the establishment and endowment of a provident dispensary in Nechells, a district of the city. Since that date a branch of the general dispensary has been erected at Nechells, so it has been arranged to form a scheme for nursing instead. The inhabitants of this locality are desirous that the whole of the trust should be for their own benefit, and protest against the diversion of the funds. Time will show the importance and weight of their opinion.

Cheap Oil Lamps.

The chairman of the Watch Committee, at a meeting held on May 29th, stated that it was proposed to send a letter to the Home Secretary calling attention to the number of fatalities that had occurred from the use of cheap lamps, and request that some steps might be taken to restrict the sale of cheap glass lamps and increase the flashing point of paraffin. Domestic legislation might prove of value, and throw light on the causes of these injuries and fatalities. Some are no doubt accidental, many arise from the use of the lighted lamp as a weapon often hurled by a drunken husband at his wife with the intention of evil.

May 29th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle-on-Tyne Old and New.

OWING to the increasing traffic in Gallowgate, it has become again one of the main streets, as it was of old, and the Corporation have obtained an Act of Parliament to widen it for a tram route. The alteration will necessitate the removal of remains from one of our oldest churchyards (St. Andrew's). The church is supposed to be about 1000 years old, but there have been no interments since the cholera year 1853, many of its victims being buried there. For this reason the vicar and some of the inhabitants objecting to the removal of the remains the Secretary of State sent down Dr. Hoffman to hold an inquiry and report. Our medical officer of health, Dr. Armstrong, gave his opinion that there would be no danger in the disinterment and removal to a suitable cemetery, after hearing which Dr. Hoffman said that he would report favourably as to the alteration.

Darlington Improvements: the New Park.

Colonel C. H. Luard, R.E., has held an inquiry at the Darlington Town Hall on behalf of the Local Government Board into applications by the Darlington Town Council for sanction to borrow £5000 for providing a recreation ground for the north end of the town.

The Health of Sunderland.

Official inquiries lose much effect by their tardiness. It is stated that the Local Government Board having become somewhat anxious at the large number of cases of typhoid fever and diarrhœa which occurred fatally in Sunderland last year have sent one of their medical officers to inquire into the cause. Dr. Thomson has paid visits of inspection to the town, and meantime the health of Sunderland is good, as evidenced by its very low death-rate.

The Sanitary Condition of Tebay.

A report from the medical officer of health was laid before the east ward rural sanitary authority at Kirkby Stephen at its last meeting on the condition of Tebay. The village was declared to be the most insanitary one in the union, and a general system of sewerage was recommended.

Ambulance Work in the North.

Dr. Anderson of Seaton Delaval has inspected a large class of ambulance students at Newsham-station and found them very efficient, reflecting credit on their instructor, Dr. Manners.

Handsome Gift by a Cumberland Gentleman.

The sum of £500 has been given by Mr. R. Heywood Thompson of Nunwick-hall, Penrith, to endow a bed in the Liverpool Convalescent Institution at Woolton in memory of his father, the late Mr. S. H. Thompson of Thingwall-hall.

Hospital Sunday at Stockton.

On Sunday last collections were made in the places of worship at Stockton, Thornaby, and district in aid of the Surgical Hospital. It was stated that the patients treated during the past year numbered 2477, being an increase on the previous year. There had been a falling off in the receipts owing to the works being closed.

Fatal Morphia Poisoning Case at Darlington from a Druggist's Cough Mixture.

On Monday last an inquest was held on a child aged who died from morphia poisoning. It appears that the child took about five teaspoonfuls of a cough mixture made by a druggist, and containing about a twelfth of a grain of morphia in each drachm. The jury returned a verdict of accidental morphia poisoning, and added a rider that druggists should put a label on bottles stating that morphia was an ingredient.

Lord Armstrong and Bamborough Castle.

The news that the sale of Bamborough Castle and adjoining lands to Lord Armstrong had received the sanction of the High Court of Chancery on Monday last has been received in the north with much satisfaction, seeing that Lord Armstrong has stated his intention to devote the historic fortress to a home for convalescents and the estate for its endowment.

Newcastle-on-Tyne, May 30th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Queen's Birthday Honours.

THE intimation that Her Majesty had conferred the honour of knighthood upon two citizens of Edinburgh has naturally been a cause of gratification to the city at large. Lord Provost Russell, who is a graduate in arts, medicine, and science, and inspector of anatomy for Scotland, occupies the civic chair with so much acceptance that everyone is pleased with the honour bestowed on him. Professor Grainger Stewart is so well known to the profession that it is needless to say that this recognition of his position in the Edinburgh school and in medicine is gratifying to his colleagues and his friends.

The Royal Society of Edinburgh.

The Royal Society of Edinburgh has awarded one of its medals to Professor T. R. Fraser of Edinburgh University for his work on Strophanthus.

Small-pox in Scotland

No new cases have occurred in Glasgow during the past fortnight. In Coatbridge, however, the disease is not yet stamped out, and in Leith and Edinburgh the outbreak is assuming very serious proportions. A really alarming

outbreak has occurred at Leith, no less than sixty-one new cases having been notified during last week. Of these, forty-six occurred in South Leith and fifteen in North Leith. As a small consolation it may be noted that in fifty-eight cases in hospital only one death has occurred. On Tuesday last Dr. Littlejohn stated that eighteen cases had been notified in Edinburgh. In a letter to his committee on the subject he pointed out the close relationship of Edinburgh and Leith, and the consequent danger of the spread of small-pox from the latter to the former. A large proportion of the Edinburgh patients had attributed their infection to Leith, and, in Dr. Littlejohn's opinion, the time had come when the Edinburgh town council should call on the Leith authorities to adopt the Notification Act without further delay. In commenting on the letter, Lord Provost Russell said he did not understand why Leith should stand out as a seceder from a course which had been so generally followed by the large cities in the kingdom.

May 30th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons.

ON Monday next, June 4th, the annual elections for office-bearers will take place. Mr. W. Thornley Stoker will be elected president, Mr. William Thomson vice-president, and Sir Charles Cameron secretary without opposition. Besides the names of candidates mentioned for the Council last week I now add the following—viz., Messrs. A. H. Jacob, R. D. Purefoy, J. J. Cranny, J. H. Scott, and Arthur Chance. There will be twenty-five candidates for nineteen places. Mr. Hamilton, who retires from the presidency, will not go up for the Council, neither will Dr. Kidd.

Eye, Ear, and Throat Hospital, Cork.

The subscriptions towards the building fund of this hospital amount to £2261 15*s.* 8*d.*, which is less than one-half of the total sum required. Sir John Arnott heads the list with the handsome donation of £500. It is intended to build on the site of the present premises a commodious and well-equipped hospital which will provide ample accommodation and be as efficient as institutions of a similar nature in Belfast. It is confidently expected by the promoters that funds will be obtained from a larger area than that of the county of Cork.

The Belfast Royal Hospital.

At the quarterly meeting, held on May 28th, it was reported that during the past three months 617 intern (258 medical and 359 surgical) and 4618 extern patients had been treated. The expenditure for the eight months ending April 30th has been £6010 10*s.* 11*d.*, and the receipts from all sources £6817 0*s.* 2*d.*, showing an excess of income over expenditure of £806 13*s.* 3*d.*, and, after deducting a debt of £145 13*s.* 1*d.* carried forward from last year, a balance is left in favour of the hospital of £661 0*s.* 2*d.* at the end of the quarter. Dr. Colville has been appointed house surgeon (vice Dr. Davidson resigned), and Dr. T. S. Kirk has been elected house physician.

Extension of the Belfast Royal Hospital.

Owing to the great increase in the number of out-patients, it has been found necessary to enlarge the accommodation of this department. A new wing, which is practically a continuation of the present waiting-room, is being built. It is divided into five compartments for the surgeons and physicians in charge of the extern department.

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The Treatment of Syphilis.

Dr. Jullien read a paper on this subject at a meeting of the Société de Thérapeutique held on the 23rd inst. He shares the opinion of Diday and of most practitioners that mercurial treatment should be applied as soon as the diagnosis is indubitable. The method which has yielded in his hands the best results is a revival of one recommended as long ago as 1864 by Scarenzio of Pavia. It consists in the injection into the buttock or the deltoid region of a solution of calomel in petrolein, each injection being composed of ten centigrammes of the salt dissolved in one cubic centimetre of the vehicle. The strength of each dose may be diminished one-half, according to the age, strength, and weight of the subject. For the space of two months the injections are practised once a fortnight. The interval is then increased to twenty, twenty-five, or thirty days. The inconveniences attaching to this method, practised under strict antiseptic conditions, are slight. Such occasional symptoms are headache, a tendency to syncope, mild gingivitis, and a sensation of constriction of the chest, which is difficult to explain. Before beginning the treatment the state of the kidneys and of the gums should be inquired into. The results are, according to Dr. Jullien, marvellous, and this statement has been confirmed by an experience extending over several years. He gives his method the preference over all others.

Methyl Blue in Facial Epithelioma.

Dr. Darier[1] reports a series of cases of cancerous growths of the face cured rapidly by daily touchings with a 5 per cent. solution of the above substance. This substance appears to exercise a specific action on cancerous elements, and is capable, when thoroughly applied, of bringing about cure unaided. But success is more easily and quickly obtained when a previous application of chromic acid or the galvano-cautery has been made. When the tumour is deeply seated, hypodermic injections of methyl blue must be practised. Dr. Darier states that recovery is greatly facilitated by skin-grafting done from the fifteenth to the twenty-first day.

May 29th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Prague Congress.

IT is very generally felt here that the International Medical Congress at Rome was not very successfully managed, and the opinion has found expression in influential quarters in Berlin that, unless decisive steps are taken at an early date, the Congress of Hygiene at Prague in September will miscarry in the same way for want of efficient and business-like management.

Cholera and Water Traffic.

The importance of maintaining a strict watch over the water traffic on rivers and canals in order to prevent the introduction of cholera into Germany has been demonstrated by the experience of the last two years. Especially on the Vistula the service for inspection of the traffic was very carefully organised. This has now been again mobilised, so as to ward off any danger from the East.

Medical Society of Berlin.

At the meeting of the Medical Society of Berlin on May 23rd Dr. Langerhans showed the organs of a man aged thirty-nine who had died from glanders in Professor Leyden's wards in the Charité. Since the discovery of the bacillus of glanders by Schütz and Löffler no case of this disease has been reported to the Medical Society. The diagnosis was confirmed by the bacteriological examination, which gave pure cultures of the bacillus, and by the results of vaccination on guinea-pigs. The internal organs, with the remarkable exception of the liver and kidneys, all showed numerous foci of the disease.

Tuberculosis among Domestic Pets.

Professor Fröhner has been investigating the extent to which tuberculosis occurs amongst domestic pets in Berlin. He found that this disease is rare amongst dogs, somewhat more frequent amongst cats, and quite common in parrots. The frequency with which the latter are attacked is attributed to their being kept almost entirely indoors.

School Hygiene in Berlin.

Dr. Edel, speaking to an assembly of medical men, recently, on school hygiene, recommended, amongst other points, that the following heterogeneous regulations ought to be enforced: (1) all schools, especially private schools, should be examined by medical officers of health in respect to cleanliness, heating, lighting, ventilation, and closet accommodation; (2) eye-glasses should not be allowed, and spectacles only when ordered by a medical man; (3) corsets should be forbidden entirely if possible; (4) upright writing should be introduced; and (5) studying by gaslight should be avoided.

It appears that in the last few months a considerable number of cases of influenza have occurred in Berlin.

May 28th.

[1] Acad de Médecine, May 22nd.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Death of Dr. Sperk.

THE death is announced of Dr. Sperk, the Director of the Imperial Institute of Experimental Medicine in St. Petersburg. Dr. Sperk was a syphilologist and dermatologist of high repute. For twenty-one years he was chief physician to the Kalinkin Hospital, the large hospital for venereal and skin diseases in St. Petersburg, which affords an immense field for observation in these classes of disease. The early part of his professional life Dr. Sperk spent in a civil appointment in Siberia, in the far away provinces of the Amur and the Primorskaia, or Maritime Province. Three years ago he was appointed to the Directorship of the Oldenburg (now the Imperial) Institute of Experimental Medicine in this city. His works on Prostitution and Prostitutes are widely known.

Zymotic Fevers in Russia.

Typhoid fever is said to be widely epidemic at the present moment in the government of Pskof, and to have broken out in the town of that name. A few cases of relapsing fever have recently occurred in St. Petersburg, but there is no epidemic of the disease in the city.

Syphilis in Siberia.

Syphilis is widely spread in all parts of Russia, and in some districts is a veritable scourge. In the government of Tomsk, in Siberia, the immigrant population is said to be decimated by the disease. The medical department has, therefore, commissioned three medical experts—Drs. Stepanof, Flitner, and Tchapin—to proceed to Tomsk and to take what measures may be necessary to prevent the further spread of the disorder there.

May 27th.

THE INSTITUTE OF CHEMISTRY.—The annual dinner of the Institute of Chemistry was held at St. James's Hall, on Friday, the 25th ult. Dr. W. J. Russell, F.R.S. (President of the Institute), being in the chair. Amongst those present were Lord Kelvin, Sir J. Evans, Professor J. Norman Lockyer, Professor H. E Armstrong, Sir Henry Trueman Wood, Dr. Frankland, Dr. Thorne Thorne, and others. In replying to the toast of "The Learned Societies," Lord Kelvin said he rejoiced to know that the offspring scientific societies were able to relieve the parent society by printing a large amount of valuable scientific matter which, although of the utmost value, could hardly be accepted by the Royal Society on account of the excessive demands upon its funds. Sir J. Evans, in proposing the toast of the evening, "The President and Institute of Chemistry," said that the institute sought, in the first place, to insure that all those who practised as analytical or consulting chemists should be properly educated and should have the proper amount of training, and he was gratified to learn that at the present time the institute had 800 members and upwards of 200 students. The President (Dr. W. J. Russell, F.R.S.) replied in a short speech, in which he said that the institute had just passed through a critical time, but that there were now signs on every side that the endeavours of the Council to raise the status of the professional chemist were being generally recognised.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE meetings of the General Medical Council which have been brought to a close in the beginning of this week have beyond all measure been characterised by despatch. Matters involving the deepest consideration have been before the Council and have as a rule received full justice in the way of discussion, as is manifest by the great length of the report of the proceedings in our present issue. To the President of the Council belongs a considerable portion of the credit of bringing about this very pleasing result in the deliberations of a body hitherto renowned for qualities tending in an opposite direction. Five years ago the Council "deliberated" for over fourteen days, but certainly not with the decisiveness of purpose or action which comes from careful prearrangement of business and a previous consideration of the subjects to be brought under notice.

Markedly absent on this occasion were the desultory debates on procedure which at former sittings took away the Council's attention from matters more under its immediate concern. Evidently these points have also been before the notice of the Executive Committee before being ventilated in the Council room. These changes are in the proper direction, and have been due to the transfusion of new and more vigorous blood into its august body. Even during this session, however, occasions were not wanting when the tendency to revert manifested itself. The discussion of questions concerning medical aid associations gave several members an opportunity of discussing the powers entrusted to the Council and of indicating what they thought to be *ultra vir s*. This question of *ultra vires* is constantly being raised by one member or another and gives rise to some amount of friction.

Among the topical subjects which have been discussed this session were the reports of the members who visited certain examinations. Mr. Bryant's description of an examination, which he had visited, as a "complete farce" led to some vigorous remarks by Dr. Charles Moore, the new representative of the Apothecaries' Society of Dublin, in defence of the body which he represented, and which at one part of the proceedings seemed to be in a fair way of being reported to the Privy Council. This action was not taken, but an assurance was given on behalf of this body that the discredited examination would in the future be amended.

Any step that is taken to secure efficiency in vaccination in the kingdom is welcome, and we are glad to notice that the regulations for the diplomas of the Conjoint Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Dublin have been brought into conformity with the requirements of the Council as regards instruction in vaccination. Thus there are now ample opportunities in each centre of medical education for training in this subject; but to secure subsequent general efficiency in practice is a matter which the Council could hardly be called upon to undertake. This could only be done by a system of State inspection and certification on a larger scale than has yet been conceived.

It was certainly very unfortunate that the General Medical Council was not informed of the draft ordinance of the Scottish Universities Commission, by which a student who has not passed a recognised examination in Arts may attend qualifying courses of instruction in the preliminary science subjects of the medical curriculum. There is no question that if a five years' course of study is to be insisted on all-round steps must be taken by the Council to prevent any possible evasion of the regulations for a five years' curriculum *after registration*. In reference to this matter we would point out that the Council should also insist that no student should be registered as a medical student whilst still at school, or else the five years' rule will again be evaded. Science may well be taught in our higher schools, but a student should not be entered on the register of medical students by means of a purely nominal pupilage whilst attending school classes.

The number of subjects required for the teaching of operative surgery to medical students is at present very large and in some places seriously diminishes the supply for practical anatomy. With such a large number of candidates as now present themselves at some of the examining boards, operations on the dead body being made compulsory for a pass, there is some reason to fear that the difficulties in connexion with the teaching of practical anatomy may be largely increased.

The Society of Apothecaries certainly does not devote too much time to its examination on clinical surgery, but when the reports on all the examining bodies are completed we shall find that the clinical examinations of other bodies are also far from satisfactory. In a clinical examination the recognition of acute diseases, which can only be seen at the bedside, is as important as of the chronic ones, which alone can be transported to an examination room.

In addition to the diplomas to which we referred last week the walls of the Council chamber were decorated during the later sittings with a number of dental advertisements which had come into the hands of Mr. Brudenell Carter. One of these was a highly coloured picture of a young lady with a splendid set of teeth admirably displayed!

In accordance with a resolution passed by the Council, we have received from the Registrar a request to give publicity to the fact that the attention of the Council has been called to the practice of advertising which is pursued by certain dentists. The Council have resolved that the issue of advertisements of an objectionable character, and especially of such as contain claims of superiority over other practitioners, or depreciation of them, may easily be carried to a point where they constitute infamous or disgraceful conduct in a professional respect.

CONTINUATION OF THURSDAY'S PROCEEDINGS (MAY 24TH).

Proposed Amendment of Penal Procedure.

The next business was to hear the opinion of counsel obtained by the Executive Committee in regard to the proposed amendment of Standing Order 14 by the addition of the following words: "Provided that when questions (*a*) and (*b*) have been answered in the affirmative, the Council may either proceed to the consideration of question (*c*) forthwith, or may, on motion from the chair, postpone any decision upon this question, either *sine die* or until the session next after that in which the inquiry has been held; and on any subsequent occasions may, if they see fit, consider any further evidence which may be laid before them."

Mr. MUIR MACKENZIE, Q.C., legal assessor, said that Standing Order 14 provided that three questions should be put from the chair. (*a*) and (*b*) were whether in the opinion of the Council the accused person had or had not committed the offence charged against him, and whether the offence charged was infamous conduct in a professional respect. The proposed amendment, if carried out, would enable the Council, after having given a decision upon those questions, to hear further evidence, and the difficulty he had in advising that to be done was that it was like hearing the case after sentence. The inquiries held by the Council

bore such a close analogy to judicial proceedings that he should hesitate to recommend the Council to do anything which would make their procedure very exceptional, and though he thought the Council might very well postpone a decision, and for that purpose go into any matters that might lead them to leniency or to refrain from passing sentence of removal, he did not think the Council could very well go into further evidence with a view to reconsider their decision. In the first place, the Council might on different occasions be composed of different persons, and, in the second place, there was always this difficulty, that the statutory jurisdiction of the Council was to remove a person's name after inquiry, and it contemplated that the Council should act when the evidence and facts were fresh in their minds. He confessed to feeling some apprehension as to what might be said if the action of the Council were subsequently questioned in a court of law, supposing they were to postpone their finding to another session and then give their decision. The facts being no longer fresh in their minds, it would be a departure from what was the course in legal tribunals. Of course, the Council was very much the master of its own procedure, but he hesitated very much to advise the adoption of the proviso as it stood.

Mr BRUDENELL CARTER explained that this plan was suggested to him for the purpose of meeting the cases of young men who had just passed their examination and through want of knowledge of the world had been entrapped into the process of covering. It occurred to him that it would be a desirable thing if the Council were able to give such offenders a period of probation with the view of not punishing them at all if they amended. That was the one object in view, and perhaps Mr. Muir Mackenzie would suggest how that could be attained.

Mr. WHEELHOUSE inquired whether it would be possible to deal with such cases, as was done in the law courts, under the First Offenders' Act?

Mr. MUIR MACKENZIE said he thought the standing order might contain a proviso providing for postponing the decision; but he should suggest that it should not be in the standing order, but part of the procedure, that the finding should not be recorded until the decision was given. But if the proviso was put in, with the provision that on a future occasion the Council might consider subsequent conduct, he did not think that would be in order.

Mr. CARTER asked if it would not be sufficient if they had a shorthand record, even if the Council had changed in the interval, to enable them to come to a finding?

Dr. ATTHILL recommended that the matter be remitted to the committee.

Mr. MUIR MACKENZIE said if it were desired he could come on Saturday and submit a proviso.

This course was agreed to.

Instruction in Day Schools and the Curriculum.

Dr. TUKE, as chairman of the Education Committee, called the attention of the Council to the following facts: (*a*) that six students have been registered in the Medical Students' Register as in pupilage with a certain registered practitioner who is said to be a science master in the public day school whereat these students are ordinary pupils; (*b*) that this day school has now been recognised by one of the licensing bodies as a teaching institution wherein the subjects physics, chemistry, and biology are taught. He said that this was an important matter for the Council to consider, as it materially affected the working of the five years' scheme. It seemed to him that, when endeavouring to establish a five years' course of medical study, by making certain exemptions in resolutions hurriedly arrived at, they had made it possible for a student to undergo only three and a half years' medical study. He moved: "That the Education Committee be requested to inquire into the subject in its relation to the Council's resolutions as to the Five Years' Curriculum, and to report to the next Session of the Council."

Dr. BRUCE seconded the motion, which was agreed to.

The Council then adjourned.

FRIDAY, MAY 25TH.

The Council again met, Sir RICHARD QUAIN in the chair.

The Council and the Scottish Universities Commission.

The first business was the consideration of a report by the Education Committee on Section 5 of the Draft Ordinance of the Scottish Universities Commission, containing regulations for degrees in medicine. In a letter to the Commissioners the President submitted that "a student residing at the seat of one of the Scottish Universities or elsewhere in the United Kingdom, who has not succeeded in passing a recognised examination in general education, may, nevertheless, under the terms of Section X., attend qualifying courses of instruction in physics, chemistry, botany, and zoology, and he might thus count a nominal year of professional study, provided only that he abstained from presenting himself for the preliminary examination till the end of the year. It need not be insisted that scientific study under such conditions, at a time when the student must also be occupying himself with the preparation of the preliminary subjects, can be neither sound nor comprehensive." In reply to this the Commissioners wrote "that the condition imposed by Section X. of the Ordinance in question is that the student must have attended a course or courses of instruction equivalent to the qualifying course in the same subject in the University granting the degree, and that in the opinion of the Commissioners this condition would not permit the evasion of the Commissioners' intentions feared by the Education Committee of the General Medical Council." The President afterwards wrote to say that in the opinion of the Council the objection to the section had not been removed by this explanation, and to ask the Commissioners to consider the propriety of passing a supplemental ordinance or taking such other step as might now be practicable for removing the objection. In a letter dated March 21st, 1894, the secretary to the Commissioners wrote that the "section was intended to provide for the case of students who had attended such a course of scientific study as would qualify for a degree in Arts or Science before they had resolved to proceed to a degree in Medicine. Such a course would naturally be more than equivalent to the course required for graduation in Medicine. These cases are exceptional, but the inquiries of my Commissioners have shown that they exist. It seemed to my Commissioners that it would be a serious hardship on such students to insist upon their repeating a course which they had already completed. My Commissioners, however, observe that the Medical Council apprehend that the provision may be applied to purposes for which it is not intended, and they have accordingly endeavoured to obviate that objection by the Supplementary Ordinances of which I enclose copies. You will observe that by these the privilege is only to be exercised by the University Court on special cause shown, and my Commissioners trust that this will meet the objections of the General Medical Council. My Commissioners retain the opinion that it is not in their power to repeal the provisions of an ordinance which has been approved by the Queen in Council, after having been laid before both Houses of Parliament, but they thought it within their competence to consider whether its application might not be regulated so as to prevent the enactment being misused." The Education Committee, reporting on the matter, said that the class of students the Commissioners intended to provide for under the section consisted probably of men who, having studied one or more of the four scientific subjects for a special purpose at periods more or less remote and with no intention of graduating in Arts or Science, at a later period resolved to enter on the study of Medicine. The number of such persons must be very small, and the Commissioners apparently did not foresee that the attempt to provide for a few very exceptional cases might imperil the working of their own ordinance and tend to neutralise the efforts of the Council to improve medical education. It might be said that the action of the section would, under the supplementary ordinance, be regulated and restricted by the reports the Senatus was to submit to the University Court, setting forth special grounds for exemption in each particular case. The effect of the restriction would depend entirely on what the Senatus might deem to be sufficient and special grounds. The submission of these reports to the University Court afforded no real safeguard, as it was extremely unlikely that a recommendation from a Senatus would be set aside by the Court. If a provision was made by which the students of one set of institutions (the Scottish Universities) were granted special exemptions, it was all but certain that similar measures would be adopted by other bodies. Even supposing the provisions of this section were administered in the Scottish Universities so as only to affect the limited class of students above suggested, the fact remained that those great institutions would be empowered to grant exemption from an essential requirement of the Council. The inevitable consequence

would be that other licensing bodies would cite this ordinance as an admitted precedent, act on it in their own way, and extend it as they deemed convenient. The committee did not think it necessary to reiterate the arguments produced in the President's letter to the Chairman of the Commissioners showing how injurious to medical education in general the effects of the application of this section might be. It provided a means for evading one of the five years of *bonâ-fide* medical study required by the Council, it nullified certain provisions of the ordinance itself, it offered an inducement to irregularity, and it enabled students in the Scottish Universities to disregard the requirements of the Council as to registration. The committee, having again carefully considered the probable effect of this section, were still convinced that it was framed in essential misunderstanding of the facts, and this conviction was confirmed by the letter of the secretary of the Commission.

Dr. TUKE, chairman of the committee, called the attention of the Council to the principal points in the report, and said he felt that it would be perfectly impossible for the Council to check attempts at evasion of their system of education so long as any of the bodies could refer to this section, by which the Scottish Universities might apply certain exemptions. He did not for a moment suggest that the Scottish Universities would make any improper use of the section. Supposing the Commissioners did not see their way to meet the wishes of the Council, he was informed on good authority that it would be quite possible to reopen the whole question upon the supplemental ordinance before the committee of the Privy Council. He concluded by moving the adoption of the recommendations of the committee, which were to the following effect :—

"I.—That the President be requested, on behalf of the Council, to transmit to the Scottish Universities Commission a copy of the Education Committee's report and to represent to the Commissioners :—1. That Clause V. of the Draft Ordinance, supplementary to Ordinance No. 14, does not meet the objections against Section X. which have already been urged by the General Medical Council, inasmuch as it does not require that a candidate on whose behalf special grounds are alleged shall have passed a preliminary examination in Arts or in Science before commencing the study of the special subjects of the first *annus medicus*. 2. That in the preamble to the Draft Ordinance no reference is made to the fact that, in the opinion of the Commission, it is desirable to limit the powers given by Section X. 3. That in the interest of medical education in general, and of the medical departments of the Scottish Universities in particular, it is desirable that the action of Section X. should by Supplementary Ordinance be suspended.

"II.—1. That the President be further requested to communicate with the Lord President of the Privy Council, asking that in case an ordinance supplementary to or otherwise dealing with Section X. should be submitted by the Commissioners for Her Majesty's approval, the General Medical Council may, through its President, be notified of the fact, and have an opportunity of representing to the Committee of the Privy Council its views thereupon. 2. That, if necessary, the President be authorised to take the necessary steps for presenting the views of the Council before the Committee of the Privy Council."

Dr. MACALISTER, in seconding the motion, said that the Universities Commissioners had been unfortunate in this respect—that they had given their reasons. These reasons were irrelevant and showed that the Commissioners were acting under a complete misunderstanding of the objection taken by this Council. The class of students which, in their letter, they were said specially to have in view was exactly the class to which this Council would not take any objection whatsoever, and the class of students to which this Council would take objection was not referred to at all. He thought it was a great misfortune that the Council had not been informed of the draft ordinance, because if the Council had enjoyed an opportunity earlier of presenting their views the whole difficulty might have been avoided. The Council persisted in their objection, not because of any distrust they entertained with regard to the senates and university courts of the Scottish Universities, but because of the extremely bad example this section offered to other bodies who could not give the same safeguards.

Sir WILLIAM TURNER pointed out with regard to the second recommendation that the Scottish Universities Act provided that, after an ordinance had been issued by the Commissioners, anyone having an interest in the matter who wished to take exception to it could do so within a month.

Dr. MACALISTER said he thought this Council deserved the courtesy of being directly informed of the draft ordinance.

The two recommendations were then adopted by the Council.

Deficient Preliminary Education.

Dr. TUKE presented and moved the adoption of a report by the Education Committee on reported cases of deficient preliminary education. The report stated that the committee considered the returns from English and Scottish bodies were satisfactory so far as the numbers therein given were concerned, and that the Council might be congratulated on the effects of the action they had taken in this matter. It was of importance to note that no return had been made by any of the Universities or by the Society of Apothecaries of London. As regards the Irish returns, the result was not so satisfactory. The committee could not avoid noting that out of nineteen instances of bad spelling thirteen were those of candidates who had passed the preliminary examination of the Royal College of Surgeons in Ireland. This was one of the examinations to which in the Council's list a note was now appended stating that "the Council has recommended that these examinations be discontinued." The committee further pointed out that the dates showed that most of the candidates had passed their preliminary examinations before the Council had drawn special attention to the question, and they expressed a hope that future returns would show marked improvement. The returns, as they stood, supported the opinion expressed by the committee in previous reports, that it would be for the public good were all preliminary examinations in general education handed over to purely educational bodies.

The motion, after being seconded by Dr. BRUCE, was carried.

The Qualifying Examination of the Society of Apothecaries of London.

Sir DYCE DUCKWORTH put before the Council a report by the Examination Committee upon the report of the Visitor and Inspector of Examinations with regard to the qualifying examination for the diploma in Medicine, Surgery, and Midwifery of the Society of Apothecaries of London. In this document the committee gave the following summary of the report of the Visitor and Inspector of Examinations—viz. : "The Visitor and Inspector report that the final examinations are 'sufficient.' They note that the pass standard, especially in the clinical parts of both the medical and surgical examinations, was not perhaps so high, nor was the scope of the examination so comprehensive, as that of some of the other licensing authorities. This is accounted for by the opinion that candidates who appear in the month of January at the examination are generally below the average in merit. It is noted that the marks of one candidate were raised to enable him to pass. (This is in contravention of a previous recommendation of the Council.) Special commendation is bestowed on the practical character of the examinations in Pathology, Urine-testing, Medical Jurisprudence, and Eye diseases. The Visitor and Inspector suggest that more time should be spent in the examination of Clinical Surgery, and that a written report of at least one case should be required in addition to the oral examination. The examination in Operative Surgery is considered to be inadequate, and was so reported by the Inspector at the last visitation in 1883. In the subject of Practical Surgery, the Visitor and Inspector report that, as a rule, the practical knowledge displayed by the candidates was defective. No evidence is required of further study in the case of candidates who may be rejected in one or more subjects of the examination."

Dr. WILKS, the Visitor in question, said he desired to emphasise the remark with reference to the scope of the examination. They were very well pleased with the examination as a whole. It was very systematic, and the method of the examination was very good, but the men did not appear to be well up, and the examiners had in consequence to confine themselves to very simple questions. He did not doubt that if there had been superior men the examiners would have proceeded further with their examination. He believed that was the reason why the scope of the examination was commented upon.

Sir JOHN SIMON said he observed that the examination in operative surgery was considered inadequate. He would like to know whether this was a general thing.

Sir DYCE DUCKWORTH replied that, with very few exceptions, all the boards had been reported upon as being inadequate in the matter of operative surgery, and the reason was very well known.

Sir JOHN SIMON said if it were the case that we have not in this country the means of conducting examinations in operative surgery, let us frankly say so. They ought not to guarantee, as competent all round, men whom they knew to be deficient in operative surgery. They must meet this difficulty in some way or other. It was met now apparently by shirking it. He was not, of course, referring to the Apothecaries' Company particularly, but he was speaking generally.

Mr. BRUDENELL CARTER pointed out that the Examination Committee had been called upon now in two succeeding years to deal with reports on final examinations in different divisions of the kingdom, and next year they would have before them, he hoped, a sufficient number of reports to finish the final examinations throughout the kingdom, and in that time various questions which had been only mentioned incidentally in these reports, which as regards the whole subject were interim reports, would come before the Council for discussion. No doubt this question of operative surgery would be one of them, and he had no doubt that they should have to say that in this country and in Scotland it was practically impossible to obtain the material necessary for the examination in operative surgery of all the men who came forward.

Mr. BRYANT said there were other modes of examining students in operative surgery than that of operating upon the dead body. It might be a question with many of them how far operating upon the dead body was a test of a man's skill.

Mr. TEALE said that as one of the examiners in 1882 he came back extremely impressed with the operations on the dead body that were carried out in Dublin at the Royal College of Surgeons. He, along with his colleague, expressed the opinion in their report that operations on the dead body ought to form part of every final examination. However, so far as England and Scotland were concerned, the matter seemed to be settled by the difficulty in obtaining material.

Sir PHILIP SMYLY expressed the view that if they did away with operations at the examinations the teaching of the subject would soon be dispensed with. The important thing in his mind was the teaching, and this examination regulated the form of the teaching. What he desired to see was the examination in practical surgery done in a practical way.

Mr. BRYANT said that the subject of operative surgery was taught very carefully in all the large London schools, and the students had to bring up evidence that they had performed a certain number of operations on the cadaver before they were admitted.

Dr. MCVAIL desired to call attention to the manner in which, it was stated, the clinical medical examination was conducted; it was conducted by bringing patients from the hospitals to the hall of the Apothecaries' Company. That was a method of which they knew nothing in Scotland, where the students were taken to the hospital and the bedside. He could not understand why the Apothecaries' Company did not take their students to the hospital. They would enormously widen the clinical field by so doing.

Dr. HAUGHTON asked the Council to take notice of the fact that this was the second occasion on which the examination in operative surgery had been reported upon as inadequate.

Mr. BRUDENELL CARTER, replying to Dr. McVail, said that the clinical examination was conducted by taking patients to the hall, and not by taking students to the hospitals, because the Society of Apothecaries agreed with the Royal College of Physicians and the Royal College of Surgeons in thinking that the plan was the best that could be pursued.

The PRESIDENT said there were some cases where there was more than inadequacy of examination, where, indeed, there was no examination at all.

Professor GAIRDNER felt bound to say that the report did not satisfy his mind that the Apothecaries' Company had made any great progress since the Examination Committee's recommendations in 1882.

Sir JOHN SIMON thought they were hardly doing justice to this question in confining themselves to the Apothecaries' Company.

The PRESIDENT said that this passage in the report upon the examination of the Apothecaries' Company was surely a very small matter upon which to hang so wide a discussion. The Apothecaries' Company was not sinning one atom more than other examining bodies.

The discussion then terminated, and the report of the committee was adopted.

The Royal Colleges in Ireland.

Sir DYCE DUCKWORTH presented a report by the Examination Committee upon the reports of the Visitor and Inspector of Examinations with regard to the final examinations held during 1893 by the Conjoint Examining Board of the Royal Colleges in Ireland. The report stated, among other things, that the Examination Committee were pleased to find that a series of recommendations had been issued by the Committee of Management in order to carry out their suggestions. They regretted, however, to read that the time allowed for candidates to answer five questions had only been lengthened by half an hour, and made one and a half hours instead of one hour, and they suggested that half an hour should be the minimum time allowed for the reply to each question. They regretted also that no notice had been taken of the Council's suggestion that more than two cases should be given to each candidate in clinical surgery, and that in their remarks upon the method of examination in operative surgery they still persisted in unfairly interpreting the recommendation of the Visitor.

Dr. ATTHILL, on behalf of his College, repeated that they were desirous to meet the wishes of the Council in every way and make the examination as good as possible.

The report was adopted by the Council.

Restoration to the Register.

On the motion of Dr. MCVAIL, seconded by Dr. BATTY TUKE, it was agreed: "That it be remitted to the Executive Committee to prepare standing orders for the regulation of procedure to be observed when a person whose name shall have been removed from the Medical Register on account of conduct infamous in a professional respect, under Clause XXIX. (1850), shall at any time make application to the Council to restore his name to the Register."

The Penal Powers of the Council.

Mr. BRUDENELL CARTER moved: "That, following the precedent furnished by the case of Steel, the legal advisers of the Council be instructed to institute prosecutions, under Section 40 of the Medical Act of 1858, against persons whose names have been erased from the Register by order of the Council, and who, nevertheless, continue to use the titles of which they have been deprived." It had, he said, been brought to his notice in various ways that persons whose names had been erased from the Register by the Council continued to issue advertisements or books in which they described themselves as still possessing qualifications which they no longer possessed. It appeared to him that that was a direct violation of Section 40 of the Medical Act, and that the only way in which they could make the penalty of erasure from the Register operative was to take care that men should not be allowed to continue with impunity to use titles of which they had been deprived. He thought that a few successful prosecutions would have a good effect.

Sir DYCE DUCKWORTH, in seconding the motion, said it was notorious that persons who had been struck off the Register by this Council continued to practise with impunity and deluded the public into believing that they were still recognised and reputable practitioners; in other words, this Council was deliberately defied.

The PRESIDENT suggested that the matter should be referred to the Executive Committee, who might consult with the legal advisers of the Council to frame some form of resolution. The motion in its present form went much too far and might lead to trouble if they acted without legal advice.

Dr. MACALISTER thought the Council should be very careful before they started to take action under Section 40, and reminded them that there were men who had titles which they had not chosen to register.

Dr. TUKE agreed that this was a difficult subject. In Scotland the Public Prosecutor was generally willing to undertake prosecutions where there was a strong *primâ-facie* case, but even in Scotland they had been unable to get him to move in this matter; therefore, he considered that there must be very considerable legal difficulty in the way.

Dr. GLOVER suggested a motion to this effect: "That it be referred to the Executive Committee of the Council to obtain legal advice as to what means can be adopted by the Council to stop the practice of persons continuing to use titles attached to diplomas of which they have been deprived and which no longer appear on the Registers." He thought the Council had been too long in using its powers for stopping the use of false titles. They had had a great success in the courts of late, and it had led many of them to think that they had been dilatory in this matter.

Sir PHILIP SMYLY seconded the motion of Dr. Glover.

The PRESIDENT said that this was not a new subject. His predecessor endeavoured to get all the Universities to take steps in the matter and he entirely failed, and he (Sir Richard Quain) would suggest that the proper course would be to make a reference to the Executive Committee to take legal advice.

not only the advice of their own advisers, but that also of, say, the Attorney-General.

Sir DYCE DUCKWORTH said it was certainly the case that graduates of Universities could not at present be deprived of their degrees, but he thought a very small Bill might be passed through Parliament giving the Universities power to withdraw degrees upon sufficient cause.

The motion of Mr. BRUDENELL CARTER having been withdrawn, that of Dr. GLOVER was agreed to unanimously.

On the motion of Dr. MACALISTER, seconded by Mr. WHEELHOUSE, it was agreed to refer to the Executive Committee a communication from the Parliamentary Bills Committee of the British Medical Association with reference to the proposed amendment of the penal clauses of the Medical Act.

The Offence of Covering.

Sir DYCE DUCKWORTH, seconded by Mr. BRYANT, moved: "That the Registrar be instructed to publish quarterly in a prominent place in the medical journals the resolutions of the General Medical Council in respect of the offence of 'covering' unqualified persons, and to supply a copy of the resolutions to every person applying for registration."

Dr. MACALISTER moved to substitute "annually" for "quarterly."

The amendment was agreed to, and the resolution in its amended form was adopted.

Report of the Pharmacopœia Committee.

Dr. MACALISTER moved the adoption of this report, from which it appeared that since the last meeting of the Council, in November, 601 copies of the last reprint of the British Pharmacopœia had been sold, the total number of copies of this edition issued up to the present date being 41 000; also that 500 more copies of the additions to the British Pharmacopœia had been ordered, making the total number issued 13,625, and that of this edition there remained in stock 584 copies. Professor Attfield had presented his report for 1893 on the Progress of Pharmacy in its relation to the Future Revision of the British Pharmacopœia, 1885. In the course of a letter prefixed to the report Dr. Atthill, adverting to the known difficulty of deciding on "omissions" of official articles from the British Pharmacopœia, says:—"This difficulty results from the circumstance that remedies rarely, if ever, used in most parts of the United Kingdom may more or less be employed in certain districts, a circumstance rendering very troublesome the task of ascertaining what remedies are rarely, if ever, used at all in any part of the country. Now, if the Medical Council were to appeal to some two or more of the medical or pharmaceutical organisations having branch organisations or local secretaries throughout the country for help in ascertaining with fair exactitude the degree of frequency or infrequency with which each drug or preparation in a given small list appears in the prescriptions of medical practitioners in the locality, the tabulated results would at once afford the desired information. I feel sure that all concerned would gladly respond to any such official request."

The adoption of the report of the committee was seconded by Dr. LEECH and agreed to.

Finance Committee's Report.

Mr. BRYANT moved the adoption of this report, from which it appeared that the income of the General and Branch Councils for the year ending Dec. 31st, 1893, had been £9687 18*s.* 10*d.*, an amount which was £386 5*s.* 10*d.* more than the income of the year 1892. The fees received by the English Branch Council in 1893 were £95 12*s.* 6*d.* more than those received in 1892; those received by the Scottish Branch Council in 1893 were more by £292 than those received in 1892; but the receipts of the Irish Branch Council from registration fees during the same period showed a decrease of £53 5*s.* against those received in 1892. The expenditure during the year 1893 had been £9751 9*s.* 2*d.*, an amount larger than that of 1892 by the sum of £2758 10*s* 1*d.* A comparison of the income with the expenditure showed that the expenditure during the past year had exceeded the income by the sum of £63 10*s.* 4*d.* The following were the items in which there was an increase of expenditure:—(*a*) An increase of £459 19*s.* occurs in respect of the fees paid to members of the General Medical Council, occasioned by the greater length of the Council's session; (*b*) an increase of £367 3*s.* 7*d.* in the General Medical Council's printing, arising from the same cause; (*c*) an increase of £152 8*s.* 6*d.* in the expenses of the British Pharmacopœia; (*d*) an increase of £300 8*s.* 3*d.* in the item of house expenses and alteration, owing chiefly to the introduction of the electric light; (*e*) an increase of £1087 19*s.* 2*d.* in law expenses, which includes a charge of £893 16*s.* 5*d.* on account of the proceedings in regard to the action taken at law against the Royal College of Physicians of London; (*f*) an increase of £225 14*s.* 9*d.* in the expenses of visitation and inspection of examinations; (*g*) an increase of £121 6*s.* incurred in the inquiry regarding medical aid associations. The only item which showed a decreased expenditure for the year 1893, as compared with 1892, was a decrease of £213 11*s.* in respect of the printing of the Medical and Students' Registers. While, therefore, the decrease of expenditure over that of the previous year in certain items amounts to £213 11*s*, the increase in certain other items amounts to £2760 14*s.* 6*d*, leaving a total increase in expenditure during the year over that of the year 1892 of £2547 3*s.* 6*d.* The average yearly income of the General and Branch Councils during the last seven years had exceeded the average yearly expenditure by £643 10*s.* 5*d.* The "percentage rate," which showed what part of the "moneys received by the several branch councils" had, pursuant to Section 13 of the Medical Act, been paid towards defraying the General Medical Council's expenses, was 82 per cent. of its total receipts in 1893, as against 57 per cent. in the year 1892. The receipts of the Dental Registration Fund for the year ending Dec. 31st, 1893, amounted to £613 15*s.* 4*d*, showing an increase of £25 11*s.* 2*d.* on those of 1892, which were £588 0*s.* 2d. On the other hand, the expenditure had been £832 5*s.* 2*d.*—owing chiefly to an increase of £178 17*s.* 7*d.* in law expenses—being an excess of £218 9*s.* 10*d.* over the income. Mr. Bryant remarked that upon the whole he thought they might look on the report as a hopeful one, as it showed that their income and expenditure as a rule were fairly satisfactory.

Sir DYCE DUCKWORTH seconded the motion.

Sir W. TURNER, alluding to the expenditure for law expenses, observed that the Council had settled a question which had never been settled, a question which it was necessary should be settled, and which was raised in such a way that it was necessary to settle it.

Dr. GLOVER said that as one of the minority of the Council, who thought that that was a very unnecessary piece of procedure and now found it to have been a very costly piece of procedure, he begged to express the hope that the increase of legal expenses would act as a caution to them in raising abstract and inapplicable questions. In 1891 the law expenses amounted to £314, in 1892 to £469, and in 1893 to £1557. He did not gather that this £800 or £900 covered the whole expenses of that action to test the power of the Royal College of Physicians of London to do what they had done for centuries. He did not think they should pass over this extremely large demand for legal expenses—at any rate those who disapproved of the action—without expressing regret at this enormous item in their financial accounts.

Dr. BRUCE said he for one counted the cost. The question was not an abstract one, but a question which was distinctly before them.

The motion was agreed to.

Diplomas in Public Health.

On the motion of Dr. MACALISTER, seconded by Dr. TUKE, a communication from the British Institute of Public Health, suggesting that the Inspector appointed to visit the examinations for diplomas in Public Health should be one possessing a diploma in Public Health, and further animadverting on the increased fee charged for the registration of such diploma, was received and entered on the minutes.

Competition for Medical Vacancies in the Navy.

A return from the Medical Department of the Navy of the candidates for the naval medical service who presented themselves for examination on May 7th was received and entered on the minutes. There were fifty-five candidates, eight of whom were physically unfit, one withdrew, twenty-six failed to obtain a place though qualified, and nine were rejected.

The Golden Wedding of Sir James and Lady Paget.

The PRESIDENT announced that he had received a communication from Sir James Paget expressing the extreme satisfaction afforded to himself and Lady Paget "by the expression of esteem and good wishes from so many distinguished and representative members of the profession."

Executive Committee.

The Council then balloted for the Executive Committee,

when it was found to be constituted as follows:—The President (*ex-officio*), Sir Dyce Duckworth, Sir Walter Foster, Sir Philip C. Smyly, Dr. Moore, Mr. Bryant, Sir William Turner, Dr. Heron Watson, and Mr. Wheelhouse.

Pharmacopœia Committee.

This committee was appointed as follows:—Dr. Atthill, Mr. Carter, Dr. C. Moore, Sir Dyce Duckworth, Sir Walter Foster, Dr. Leech, Dr. MacAlister, Sir Philip C. Smyly, and Dr. Tuke.

Finance Committee.

Mr. Bryant, Sir Dyce Duckworth, Dr. Moore, and Mr. Wheelhouse were appointed as the Finance Committee.

Dental Committee.

The Dental Committee, appointed under Clause 15 of the Dentists Act, 1878, for the purpose of erasure from and restoration to the Dentists' Register, was nominated as follows:—The President (*ex-officio*), Sir Dyce Duckworth, Sir W. Turner, Mr. Wheelhouse, and Sir Philip C. Smyly.

Penal Cases Committee.

This committee was appointed to consist of Sir Dyce Duckworth, Mr. Bryant, Dr. Glover, Sir Walter Foster, and Mr. Brudenell Carter.

The Council then adjourned.

SATURDAY, MAY 26TH.

The Council resumed, the President, Sir RICHARD QUAIN, in the chair.

The case of Dr. Robert Ingram Robertson.

The Council proceeded to consider the case of Robert Ingram Robertson (registered as M.B., Mast. Surg., 1890, Univ. Edin.), complained of by the Medical Defence Union, and who had been summoned to appear to answer the following charge as formulated by the Council's solicitor: "That, being a registered medical practitioner, he had for a considerable time past acted, and still acts, as cover to an unqualified person named Charles Graves, of Windsor-road, Penarth, and lends his presence, advice, and assistance to enable the said unqualified person to attend patients, and recover charges therefor, and generally conduct a medical practice as though he were legally qualified." The case had been down for consideration some days before, but had been deferred.

Dr. BATEMAN appeared for the Medical Defence Union.

Mr. WHEELHOUSE stated that a certificate had been received, accompanied by a statement of Dr. Robertson's case. The certificate was signed by Mr. Rice Jones, who stated that he had been requested to see Dr. Robertson, who, as well as Mr. Graves, had been hitherto an entire stranger. He found Dr. Robertson quite prostrate in bed, owing to inflammation of the lungs. At Dr. Robertson's request he had written the accompanying statement of his case. He felt satisfied that Dr. Robertson was sincere in his undertaking. Personally he had no belief in homœopathy, but the dictates of humanity urged him to befriend a brother who was pressed hard.

Dr. BATEMAN said he should oppose the further adjournment of the case on several grounds.

The REGISTRAR (Mr. Miller) said he had informed Dr. Robertson that if he could not come he must send a medical certificate. He knew nothing more than that. He did not know whether the certificate sent was *bonâ-fide* or not, but the gentleman who signed it was a duly registered man.

Mr. MACALISTER suggested that they should hear the accusation and the written defence, as it appeared to him that to postpone the whole case when they had the documents before them would be a little premature.

It was decided to proceed with the case.

Dr. BATEMAN then stated the case against Dr. Robertson. It appeared from his statement that Dr. Robertson's addresses in the Directory and Register differed from the address at which he lived, the former being in Penarth and the latter in Cardiff. Mr. Graves, whom he was charged with covering, had been practising at Cardiff for eight years, and had three dispensaries, two in that town and one in Penarth. He was prosecuted by the Medical Defence Union under the Medical Act and the Apothecaries Act twice last year, and was fined the full penalties. Dr. Robertson was written to, warning him against covering Mr. Graves, and at the prosecution of the latter it was mentioned by his counsel as a plea for the defence that he was a duly qualified practitioner. Then a witness for the prosecution mentioned that Mr. Graves, when he was consulting him, told him that Dr. Robertson, the young man who dispensed the medicines, would see patients during his absence at Penarth. The prosecution took place in March and October, but Dr. Robertson was known to have seen patients in November and as late as March last. Dr. Bateman read a number of documents, from which it appeared that Mr. Graves had signed certificates as M.D. of Ohio.

In his written defence Dr. Robertson denied that there had been residence together at Penarth, and stated that he found Mr. Graves had qualified in medicine, and that, but for failure of health and domestic troubles, he would have gone in for his examination in surgery.

The Council, having deliberated in private, found that the charge of covering an unqualified person was proved, that it was infamous conduct in a professional respect, and instructed the Registrar to erase Dr. Robertson's name from the Medical Register.

Royal College of Surgeons' (Ireland) Licence in Dentistry.

Dr. TUKE introduced the report of the Education Committee on the curriculum for the licence in dentistry granted by the Royal College of Surgeons in Ireland. It appeared from the report that the committee were of opinion that, in consequence of the Royal College of Surgeons in Ireland not requiring from candidates evidence that they have received instruction in mechanical dentistry during three years from a registered dental practitioner, the course of study prescribed by the said College is not such as to secure the possession by persons obtaining the licence of that College of the requisite knowledge and skill for the efficient practice of dentistry or dental surgery; and they recommend the Council to represent this opinion to the Privy Council and to request the Privy Council to make order that the certificates granted under their present regulations by the Royal College of Surgeons in Ireland shall not confer the right to be registered under the Dentists Act. The committee were further of opinion that candidates for the said licence who hold a diploma in surgery, and who, by the regulations of the said College, "are only required to produce certificates of one year's attendance at a dental hospital, where such attendance has been subsequent to the date of diploma," should not be admitted to the examination for the licence. The committee were of opinion that the time had come for putting into force the powers conferred by Section 22 of the Dentists Act for the visitation and inspection of the examinations held by the bodies conferring dental qualifications. He moved the first recommendation of the committee as follows: "That the Council intimate to the Royal College of Surgeons in Ireland that, unless the prescribed course of study for its licence in dentistry be amended, so as to bring it into compliance with the requirements of the Council, prior to the next examination for said licence, the Council will feel it to be their duty to report to the Privy Council, in accordance with Section 23 of the Dentists Act, 1878, 'That it appears to the General Council that the course of study to be gone through in order to obtain the licence in dentistry of the Royal College of Surgeons in Ireland is not such as to secure the possession by persons obtaining such certificate of the requisite knowledge and skill for the efficient practice of dentistry or dental surgery'; and, further, to request the Privy Council to make order that the certificates granted under their present regulations by the Royal College of Surgeons in Ireland shall not confer the right to be registered under the Dentists Act."

Dr. MACALISTER, in seconding the recommendation, said he should like to call attention to the fact that the dental curriculum had been accepted by all the licensing authorities in this country loyally and continuously since it was first proposed and also by the Royal College of Surgeons in Ireland until a very recent date. The dental practitioners throughout the country generally regarded the departure by the Royal College of Surgeons in Ireland as one of the greatest importance. They had received a strong memorial from the British Dental Association and petitions from registered dental practitioners, the Dental Hospital of London, the Glasgow Dental Hospital, the Victoria Dental Hospital, the Liverpool Dental Hospital, the Edinburgh Dental Hospital, and the National Dental Hospital and College, praying that action be taken to have three years' pupilage in dental mechanics restored to the curriculum. A considerable number of those in the profession in Ireland itself were of opinion that this was a false step on the part of the College. He said this Council

ought to maintain those who were struggling for the curriculum. The Dental Act really gave them greater powers than did even the Medical Act, and in suggesting that the Royal College of Surgeons in Ireland should be given another opportunity they were not doing more than could be required to give them a *locus penitentiæ*. On a former occasion the Council had to do the same with regard to their curriculum as to the medical examination, and he was glad to say that the appeal to their better feelings had been successful, and that they had restored some Latin subjects to the curriculum. He did not think it would be necessary to go to the Privy Council, but he thought they must make reference to that, and say that if no change was made then the only alternative open to them must be taken.

Sir PHILIP SMYLY said the President of the Royal College of Surgeons in Ireland called on him after a recent meeting of the Council of the College which he had been unable to attend, and said that the College as a college were determined to carry out the views of this Council in the fullest way in regard to this matter. He thought the resolution contained a threat and asked that it be omitted.

Dr. HAUGHTON, as a member of the Education Committee, thought that after hearing what fell from Sir P. Smyly it was not necessary to press the resolution.

Dr. TUKE feared it was necessary to press the motion. The assurance of the President of the College was not sufficient.

Mr. BRUDENELL CARTER pointed out that there was no threat, but merely a statement of what the Council would feel it its duty to do.

The motion was agreed to.

Dr. TUKE then moved the second recommendation, as follows: "That, in order that the Council may be assured that the requirement especially dealt with in this report and other requirements are being fully complied with, they shall, in accordance with Section 22 of the Dentists Act, 1878, appoint an inspector or inspectors, whose duty it shall be to visit and report on the examinations conducted by the bodies granting qualifications in dentistry, with special instructions to examine the schedules and certificates presented by every candidate; and that it be remitted to the Executive Committee to consider the best way of carrying out the inspection."

Sir W. TURNER suggested that there was a difficulty as regards finance.

Dr. BRUCE said if there was any difficulty they might go to the Dental Fund. It was very desirable that the inspection should be made.

Sir DYCE DUCKWORTH, as chairman on the Finance Committee, said there was no money for an inspection out of the Dental Fund.

The motion was agreed to.

Amendment of the Penal Clause.

Mr. MUIR MACKENZIE, Q.C., said he had undertaken to report on this subject. An amendment to Standing Order 14 was suggested by Mr. Brudenell Carter, and he had now drafted what he thought would be an amendment on which the Council could safely act. It would be in these terms: "Provided that when Questions (*a*) and (*b*) have been asked the first has been answered in the affirmative, the Council may either proceed to the consideration of Question (*c*) or may on a motion from the chair postpone any decision upon this question, and adjourn the inquiry either *sine die* or until the next or some other future session, and that when the matter comes before the Council again further evidence may, if the Council thinks fit, be received." That, he thought, would compass the object desired—namely, that on the Council finding a practitioner had been guilty of infamous conduct it might nevertheless adjourn the inquiry so as to enable the practitioner by subsequent good conduct to recover his place. He did not think it right to record on their minutes that a man had been guilty of infamous conduct and to go no further. It was for that reason he had put in the words "may adjourn the inquiry."

Mr. CARTER said he would bring forward the proviso on Monday.

Advertising by Dentists.

Mr. MUIR MACKENZIE gave his opinion that the resolution on this subject considered on Dec. 5th, 1893, obtained by the Executive Committee pursuant to the resolution of the Council, should read as follows:—"The attention of the Council having been called to the practice of advertising as pursued by certain dentists, it is hereby pointed out that the issue of advertisements containing claims of superiority over other practitioners, or unfair depreciation of them, may easily be carried so far as to constitute infamous or disgraceful conduct in a professional respect."

Mr. CARTER said he would bring forward the matter on Monday.

Instruction in Vaccination.

Dr. TUKE presented and moved the adoption of a report by the Education Committee on Instruction in Vaccination. In this document the committee said that they had already reported that the regulations of the Conjoint Board in Scotland provided fully for instruction in vaccination. They had now to report that they had received a copy of the abstract of regulations for the diplomas of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Dublin, which showed that this Conjoint Board had now brought its regulations into conformity with the requirements of the Council, not only as regards instruction in vaccination, but also as regards instruction in physics, biology, and mental disease.

The report was adopted by the Council.

The Royal College of Surgeons in Ireland and the Apothecaries' Hall of Ireland.

Sir DYCE DUCKWORTH put before the Council reports by the Examination Committee on two inspections of the final examinations of the Conjoint Examining Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Ireland. With regard to the first inspection the committee reported to this effect—viz.: "The Examination Committee does not find that any of the complaints made by the Visitor and Inspector have been seriously, if at all, controverted by the bodies implicated, but the committee is pleased to find that amendments are promised in respect of most of the points to which attention was called. With regard to the extension of time now permitted for written replies to papers the committee is of opinion that an hour is not sufficient to allow of satisfactory answering of three out of five questions and that at least half an hour should be allowed for each question. The Examination Committee do not understand the affirmation that surgery constitutes "the most important part of the examination" held by this Conjoint Board. The three parts of the final examination are of equal importance, though stress is laid as far as possible upon the clinical aptitude manifested in each division. The Examination Committee is strongly of opinion that the custom of accepting as evidence of sufficient clinical study written reports on six cases in each subject of medicine and surgery in lieu of certificates of clinical clerkships in medicine, dresserships in surgery, and clerkships in the post-mortem theatre is quite indefensible, and is one which cannot possibly afford a guarantee of adequate clinical training. A grave defect in practical training is thus disclosed, and the Conjoint Board is content to leave this matter where it stands. This committee begs leave to urge the Council to notify its strong dissatisfaction with the course thus maintained. With respect to adjudication of results of the examination, the Examination Committee regrets to find that the Board of Examiners has determined to retain its power of discretion in passing candidates by vote. This system thus leaves a loophole for judgment in the face of the inflexible decision which is arrived at by a careful award of marks at the hands of each examiner, and is apt to be called in force only in the case of the weakest and most unworthy candidates."

With regard to the second inspection the committee reported as follows:—"The Visitor and Inspector are unable to express an opinion on the 'sufficiency' of this examination, inasmuch as no candidates who came up for it were able to pass in medicine. The standard in medical jurisprudence and hygiene is declared to be 'extremely low,' and the oral examination in both subjects far from being sufficiently practical. The regulations and examinations of the board are considered 'slack,' but improvement in most respects is noted. Many deficiencies in the details of the examination are reported, and laxity both in the written and oral parts. Candidates were allowed to pass piecemeal in single subjects, and on very inadequate marks, a course which stands condemned by the General Medical Council. The Examination Committee desires to call the attention of the Council to the serious state of matters revealed by these inspections, indicating standards of requirements which ought, in the opinion of this committee, no longer to be regarded by the Council as 'sufficient.' The Examination

Committee think it would be very desirable that the General Medical Council should suggest to the Royal College of Surgeons of Ireland the propriety of severing their connexion with the board whose proceedings can be thus described."

Mr. BRYANT, the Visitor of the examinations, said he had no wish to add to the criticisms he had made upon a former occasion; he was perfectly satisfied with the report of the Examination Committee.

Dr. MACALISTER directed the attention of the Council to the suggestion in the last paragraph of the report that the Royal College of Surgeons in Ireland should sever their connexion with this board. This would be a very serious step for the Council to take, and he doubted whether they had any legal warrant for it. He thought the proper course to adopt was, if the Council were still without confidence in the sufficiency of the examinations, to inspect every examination that was held as they had done two in succession.

The Council then went into committee to consider the report.

Sir PHILIP SMYLY took exception to the wholesale condemnation by the Examination Committee. He pointed out that at the first inspection the Visitor and Inspector reported that the examination in surgery was sufficient, although that in forensic medicine and hygiene was not sufficient.

Sir WALTER FOSTER thought the Council might warn the Conjoint Board that if their present course of conduct was continued the Council would approach the Privy Council on the subject.

Sir DYCE DUCKWORTH said that that had been done already.

Dr. ANGUS FRASER thought that if the Council postponed action they would be open to a charge of wilfully allowing men who had been insufficiently examined to get upon the Register.

Dr. GLOVER suggested that the Council should hear the representatives of the inculpated bodies, Sir Philip Smyly and Dr. Charles Moore.

Sir PHILIP SMYLY said that when the Visitor and Inspector complained of the examination in medicine the examiner in that subject immediately resigned and two examiners were then appointed. He felt confident that if there had been an inspection of the last examination the report would have been different.

Dr. CHARLES MOORE assured the Council that it was the most earnest wish of the Apothecaries' Hall to amend their regulations wherever they could in order to bring them into conformity with the requirements of the Council. He thought an injustice, not a wilful injustice, had been done to the Apothecaries' Hall. A certain gentleman came up at the autumn examination and he was adjudicated marks by the late examiner. Those marks were found fault with by the Visitor and Inspector as being too high. The marks given him were seven or eight, which would pass him abundantly in medicine, as they went on units. Those marks were considered too high by the Inspector, who was a Fellow of the Royal College of Physicians of Ireland, and all he allowed were one and a half, which would have rejected the candidate. The gentleman passed an oral examination. He went up in a few days to the Royal College of Physicians of Ireland, that body of which the Inspector was a Fellow, and he passed with flying colours. Therefore surely there must not have been very much wrong with the candidate. They were told by the Visitor and Inspector that the examination in forensic medicine was insufficient, and was not practical because there were no specimens shown at the examination. They had an oral and a written examination in this subject, and in accordance with the recommendations of this Council he took care to provide plenty of specimens for the last examination. As to the last paragraph in the report he might say that in 1871-72 the Apothecaries' Hall were most anxious to unite and form a tripartite board with the Royal Colleges of Physicians and Surgeons, Ireland, for the examination of qualified practitioners. Opposition then came from the Royal College of Physicians, and the plan was overthrown. In 1886 there was another scheme for a tripartite board. He would like to add that the Apothecaries' Hall had always endeavoured to meet the wants of the sick poor in Ireland. They represented the great majority of the union medical officers in Ireland, and in private practice their members had largely come to the relief of the suffering poor. Many highly respected practitioners in England came over to Ireland in order to get the licence of the Apothecaries' Hall and qualify themselves in the eyes of the Irish working classes in England.

Dr. ATTHILL thought Dr. Moore had travelled far beyond the question now before the Council. As to the action of the Royal College of Physicians of Ireland with regard to a tripartite board, that College considered themselves a body which ought to be on an equality with the other Colleges of Physicians, and had taken the same course that they had taken. He had looked into the figures with regard to the practitioners who came over for the licence of the Apothecaries' Hall, and he found that during the years 1889-93 there were thirty-seven candidates and every one of them was admitted.

Dr. CHARLES MOORE reminded the Council that these were all qualified men already on the Register. He had a summary of all examinations held by the Conjoint Board from 1888 to October, 1893, and he found that there were 241 candidates, of whom 132 were passed and 109 rejected.

Sir DYCE DUCKWORTH moved: "That it appears to the General Medical Council that the standard of proficiency in medicine and in certain branches thereof required from candidates at the qualifying examination held by the Conjoint Board in Ireland of the Royal College of Surgeons and the Apothecaries' Hall is insufficient, and that the Council do accordingly make a representation to the Privy Council to that effect."

Mr. BRYANT seconded this motion.

Dr. P. HERON WATSON moved an amendment to the effect that the examinations of the board during the next twelve months should be inspected and reported upon.

Dr. PETTIGREW seconded the amendment.

Mr. BRUDENELL CARTER did not think the Council were entitled to allow the matter to go on for another year. In making a representation to the Privy Council they were simply discharging a statutory duty.

Mr. TEALE expressed the view that they should have a stronger case before going to the Privy Council.

Sir DYCE DUCKWORTH said that the Council had the public to consider, and when members spoke of mercy and forgiveness they should think of the public, who were suffering from improperly educated men being placed among them as medical practitioners. His own opinion was that this board was the weakest board in the three kingdoms. If it was so weak, and if, as they had reason to believe, incompetent men managed to slip through—and it was notorious among students that it was easy to get through—then it surely was the duty of this Council to take action. His own opinion was that this board was doing harm, and that the General Medical Council should do all they could to stop it doing more harm.

Dr. GLOVER admitted that there was a great deal to be said for the course proposed by Sir Dyce Duckworth, but he did not think they were called upon to take it without well considering the state of things that would be produced by their action. There were two conjoint boards in Ireland, and he could not help feeling that the Royal College of Surgeons in Ireland was in this matter as responsible as the Apothecaries' Hall, but by the course now proposed to the Council they only punished the Apothecaries' Hall, and the Royal College of Surgeons would escape, being still a member of another conjoint board. The serious consequence was this, that they left in Ireland only one conjoint board, the fee of which, he believed, was the highest charged by any body in the United Kingdom. The fee, he understood, amounted to no less a sum than forty-two guineas. In the whole circumstances of the case he thought the Council might delay action a little longer.

Dr. BRUCE spoke of the state of matters disclosed in the report as disgraceful.

Dr. MCVAIL said that after the representative of the Apothecaries' Hall had heard so fully the opinions of distinguished members of this Council regarding the examination the discussion might be adjourned until Monday in order that he might reply, and possibly even submit a statement to the Council as to the manner in which in the future the examination might be improved.

Sir DYCE DUCKWORTH said he was quite willing that this should be done.

The debate was accordingly adjourned, and the Council resumed.

Preliminary Examinations Abroad.

Dr. TUKE presented a short interim report from the Education Committee on the Preliminary Examinations by Indian, Colonial, and Foreign Universities and Colleges.

The Council then adjourned.

MONDAY, MAY 28TH.

The Council met again, Sir RICHARD QUAIN presiding.

The Royal College of Surgeons in Ireland and the Apothecaries' Hall of Dublin.

The Council resumed consideration of the two reports by the Examination Committee on the final examinations of the Conjoint Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Dublin. At the same time they took into consideration a report by the committee on a memorial from the Royal College of Physicians of Ireland in regard to the examinations. The conclusions of the committee in this report were as follows: "The Examination Committee is prepared to accept the allegations made by the Royal College of Physicians of Ireland as virtually founded on facts and believes that serious irregularities have arisen, for which the Conjoint Board of the Royal College of Surgeons and the Apothecaries' Hall in Ireland is mainly responsible. The Examination Committee is of opinion, having regard to the laxity and incompleteness of the examinations of that board, as proved by the two recent inspections of them, that the continuance of that combination in Dublin is no longer desirable, especially when the small number of students who avail themselves of it is considered, and believes that the Royal College of Surgeons would be well advised to sever its connexion with the Apothecaries' Hall. Two Universities and two Royal Colleges can certainly supply sufficient qualifications for the requirements of practitioners in Ireland."

Sir DYCE DUCKWORTH moved: "That it appears to the General Council that the standard of proficiency in medicine and in certain branches thereof required from candidates at the qualifying examination held by the Conjoint Board in Ireland of the Royal College of Surgeons and Apothecaries Hall of Ireland is insufficient, and that the General Council do accordingly make a representation to the Privy Council to that effect." In Ireland, he said, there were two conjoint boards; in England and in Scotland only one. Speaking as an ordinary member of this Council, and not as chairman of the Examination Committee, he said that it was matter of common knowledge and belief that the examination of this Conjoint Board was not in all respects a creditable or desirable one, and the time had come when the Royal College of Surgeons would be well advised if it broke up what he ventured to call this left-handed board. He could not think that it was for the best interests and dignity of the College, which had hitherto stood so high in the estimation of the profession, that it should continue to be allied with another body which had again and again been condemned by this Council.

Mr. BRYANT seconded the motion.

On the suggestion of Sir WILLIAM TURNER it was agreed that the motion should be taken in two parts, the last word of the first part being "insufficient."

Dr. ATTHILL then delivered a long speech in justification of the action of the Royal College of Physicians of Ireland. He declared that in this matter his College was actuated by nothing save a sense of duty to the profession, the students, and the public, and that it would not gain a single farthing if the sanction of this Conjoint Board were withdrawn.

Sir PHILIP SMYLY reminded the Council of its resolution last year, in which, as he said, they threatened execution if certain conditions were not complied with. Dr. Moore and he went to the Conjoint Board and placed before them these conditions, and they were accepted without a word of contradiction. In these circumstances he asked whether it was just to enforce the penalty. He thought that time should be given to see whether the conditions were efficiently carried out by the board. He was instructed by the Royal College of Surgeons to acknowledge these irregularities and to assure this Council that certain changes had been made which, the Council of the College believed, would secure that such irregularities would not occur again.

Dr. CHARLES MOORE, speaking for the Apothecaries' Hall, said that on Saturday he telegraphed to the secretary of the Hall with reference to Dr. Atthill's statement that all the registered practitioners who applied for their licence had been passed.

Dr. ATTHILL: During the last five years.

Dr. CHARLES MOORE said that the information of the secretary was to the effect that during the past five years about forty-five men got their diploma and there were about four or five rejections. He had further to say that the governors and secretary wrote to endorse what Sir Philip Smyly had said with reference to the resolutions, and to say that every attention would be paid by them to the utmost minutiæ of the requirements of the Council. In future they trusted that a more systematic and orderly course of procedure with regard to the certificates would be undertaken.

The first part of the motion was then put to the Council and adopted.

Sir DYCE DUCKWORTH moved the second part, "and that the General Council do accordingly make a representation to the Privy Council to that effect."

Mr. BRYANT seconded the motion.

Sir JOHN BANKS thought that the Council should pause. He had entire confidence in the statements of Sir Philip Smyly and Dr. Moore, and he firmly believed that their representations and the effect of the discussion which had taken place would render it unnecessary to report to the Privy Council.

Dr. MACALISTER said that, according to his interpretation of Clause 4 of the Medical Act of 1886, the Council, having declared the examination insufficient, had no option but to report to the Privy Council.

Dr. PETTIGREW, speaking as a member of the Examination Committee, said that Sir Dyce Duckworth's motion did not represent his views.

The PRESIDENT said that the Council was required to make a representation to the Privy Council, but the Act did not say when it was to do so.

Sir WALTER FOSTER did not think the Council could get out of the difficulty in that way. He was sorry to find the Council in this position, because he did not think they had a particularly strong case.

Dr. P. HERON WATSON, with the consent of the Council, substituted for the amendment he moved on Saturday the following, viz.: "As, however, the Conjoint Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Dublin have given an assurance by the representatives of these two bodies that they will carry out to the fullest extent and without delay all the recommendations of the General Medical Council on the subjects of education and examination, subject to legal opinion on Section 4, Subsection 1, of the Medical Act of 1886, the Council decides that meanwhile it shall not report these bodies to the Privy Council, but that all the examinations, whether final or previous, held by the Conjoint Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall of Dublin shall be specially visited, inspected, and reported upon during the next twelve months period under the direction of the Executive Committee of the General Medical Council."

Dr. PETTIGREW seconded this amendment.

Sir JOHN SIMON said he had given this matter his most earnest consideration, and had experienced great difficulty in arriving at a conclusion with regard to it. If it was their permanent and settled opinion that this examination was insufficient, then they had nothing to do but represent to the Privy Council that they might form a provisional opinion and leave an interval. He thought there was nothing contrary to that in the clause of the Act. Although it had fallen to the Council to deal with troublesome cases, cases where bodies had set themselves against the Council, they had never yet gone to the Privy Council, and he was disposed, if they legally could, in face of the very positive declaration of promised amendment, to give this body another trial under watching of the Executive Committee.

Sir PHILIP SMYLY assured the Council that it was not a mere case of promises. He gave them the positive assurance that the conditions laid upon the board last year had been complied with in every particular, and that they intended, not merely to accept those, as they had accepted them, but to see that all the requirements of the Council were carried out.

Dr. CHARLES MOORE said he had with him the assurance of the deputy governor and the secretary that the Apothecaries' Hall would to the utmost carry out the wishes of the Council, and exert a thorough scrutiny over the new machinery which they had created in conjunction with the Royal College of Surgeons, and he sincerely hoped the Council would never have an opportunity of finding fault with what they did. He would like to add one word: it had never been the lot of this Council to have before it for unprofessional conduct a member of the Apothecaries' Hall.

A vote was then taken, when there voted for Dr. Heron Watson's amendment 20 members and against it 8 Sir Walter Foster declined to vote either way, and Mr. Teale was absent.

The PRESIDENT said he had been reminded that he must put the amendment as a substantive motion.

Mr. BRYANT wished, before that was done, that the

President would inform the Council how they stood, because he was in doubt as to how matters would go supposing they were told they were not doing a legal thing. What power would the Executive Committee have to act in the absence of this Council?

The PRESIDENT said he took it that the Executive Committee would be advised by the lawyers to exercise its powers and go to the Privy Council. The Executive Committee was really the Council itself.

The amendment was put as a substantive motion, and carried by 25 to 4, the names being taken at the request of Sir W. Turner.

Indian, Colonial, and Foreign Preliminary Examinations.

The Education Committee presented an interim report on the preliminary examinations by Indian, colonial, and foreign universities and colleges, in which they stated that since last session they had been occupied in considering the preliminary examinations held by various Indian and colonial bodies, but had experienced considerable difficulty in obtaining exact information with regard to certain of these examinations. It appeared, however, that certain of them did not meet the requirements of the Council as regards general education. Before definitely proposing that these examinations should be removed from the Council's list the committee desired to be empowered to forward to each of the bodies concerned a copy of the draft report which they had prepared on the subject, and invite them to communicate to the committee any explanation or objection they might have to make in regard to them.

On the motion of Dr. TUKE the report was adopted.

Amendment of the Penal Clause.

Mr. BRUDENELL CARTER moved: "That Standing Order, Cap. 14, Clause 14, be amended by the introduction at the end of the following words: Provided that when question (*a*) has been answered in the affirmative, the Council may either proceed to the consideration of questions (*b*) and (*c*) forthwith, or may, on motion from the chair, postpone any decision upon this question, and adjourn the inquiry either *sine die* or until the next or some other future session, and upon the matter coming before the Council again further evidence may, if the Council think fit, be received." In introducing the motion he said its object was fully explained when Mr. Muir Mackenzie was present the other day, and the words now before them were drawn up by him to meet the case. He was particularly anxious that this should be in a form in which it could be applied to dental practitioners, and as he gathered from the standing order that the proceedings for the removal of a name would be essentially the same in the case of a dental practitioner as in the case of a medical practitioner, to which it all applied, he would let the motion stand as it was.

The motion was agreed to.

Application for Registration.

The Scottish Branch Council recommended, in accordance with the opinion of Mr. Muir Mackenzie, that Mr. Edgar Taylor, a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, the date of whose diploma was Oct. 25th, 1883, now residing and practising at Longtown, Cumberland, be admitted to the Medical Register on production by him of his diploma or of sufficient evidence of the facts stated in his application.

On the motion of Dr. GAIRDNER the recommendation was agreed to.

Students' Registration.

The Students' Registration Committee reported that they met on Thursday, May 24th, and considered various applications for permission to antedate or register under exceptional circumstances, some of which were acceded to and others refused.

Sir DYCE DUCKWORTH moved that the report be received and adopted. For the benefit of the Scotch representatives he said their registrar in Edinburgh sent up to this committee a number of cases which he appeared to consider good enough, but which they in London thought required no consideration, being so impossible of passing that the registrar might really be spared the trouble of sending them up.

Sir W. TURNER referred to certain cases amongst those whose applications to be registered without further preliminary examination were not acceded to. In one case the applicant had received the degree of B.A. from the Central Turkey College, Aintab; in another the degree was B.A. of Anatolia College, Asia Minor; in a third the degree was B.A. of the Robert College, Constantinople; and in a fourth it was the B.Sc. degree of the Jesuit College, California. He thought it would be advisable to have some explanation why certain degrees in Arts had not been accepted. As regarded the cases in Turkey, very admirable institutions had been established for affording general education, more especially for Greeks and Armenians, and he believed the gentlemen whose degrees he had referred to were Armenians. As the Council knew, the Turkish Government had behaved in an extremely harsh manner to some Armenians resident in Asia Minor, and they had been obliged to leave the country. Three gentlemen, two of whom he saw at the beginning of the winter session, came to Edinburgh. They were received by the Principal of the University and by other members of the Senatus at once as men who might be admitted to study in the faculty of Divinity and the faculty of Law, because the certificates they presented, the explanations they gave of themselves, and their manifest attainments enabled the University authorities to feel that they were well worthy of being received into those faculties. What was good for admission to the faculties of Divinity and Law he imagined might be equally good for admission into the faculty of Medicine. He thought the wholesale non-acceptance of these cases was not altogether to be commended. It was the pride of the German Universities to draw men from all countries to them, and he did not see why there should not be an equal pride on the part of the Universities of this country to attract by the excellence of their teaching men from all quarters.

Dr. BRUCE said the committee considered each case distinctly.

Sir W. TURNER: Was it on the basis of knowledge or ignorance?

Dr. MACALISTER: In accordance with the regulations of the Council.

Sir DYCE DUCKWORTH: It was distinctly on the basis of ignorance, and so long as we are ignorant it is the duty of this Council not to accept anything about which we know nothing.

Sir W. TURNER could not accept the proposition. He thought when people were ignorant of a subject with which they had to deal it was their first duty to try to make themselves acquainted with it. Let them try to get some information from the British Consul. The Education Committee wanted information about Indian, colonial, and certain foreign institutions, and had got permission from the Council to take steps to obtain it. Let the Students' Registration Committee do the same thing.

Dr. MACALISTER said the speech of Sir W. Turner was irrelevant. This committee had to carry out the regulations of the Council, which were perfectly precise and clear. The colleges in question, of which they did not know anything, were not on the Council's list.

Dr. TUKE said that in a number of cases in India, America, and Canada universities laid down a higher standard of examination than was done in this country.

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The motion was agreed to.

Representation of English Branch Council on Education Committee.

On the motion of Mr. WHEELHOUSE, Sir John Simon was elected as a fourth member of the English Branch Council to the Education Committee.

Examination Committee.

The following were nominated for election to this committee:—By the English Branch Council: Sir Dyce Duckworth, Mr. Carter, and Mr. Bryant. By the Scottish Branch Council: Dr. Pettigrew, Sir W. Turner, and Dr. Heron Watson. By the Irish Branch Council: Dr. W. Moore, Sir Philip C. Smyly, and Dr. C. F. Moore.

The nominations were confirmed.

Education Committee.

The following were nominated to constitute this committee:—By the English Branch Council: Dr. Glover, Dr. MacAlister, and Mr. Wheelhouse; by the Scottish Branch Council: Dr. Tuke, Dr. Bruce, and Dr. Fraser; by the Irish Branch Council: Sir John Banks, Dr. Haughton, and Dr. Kidd.

The nominations were confirmed.

Dental Representation on the Council.

Sir W. TURNER moved: "That with regard to the communication from the British Dental Association, in which it was suggested that one or more dental representatives be added to the Council, the Council is not prepared to adopt this suggestion." He understood the contention of the gentlemen who were moving in the direction of special dental representation to be that under Subsection (*b*) of Section 10 of the Medical Act they were a constituent body to return a member. That seemed to be such a strained interpretation of the section that it could not be considered for a moment. He thought the original form of the resolution was the proper form — namely, that if a dental representative or representatives were to be added to the Council it could only be through an Act of Parliament. Still, in order that the motion might include also this section of the Medical Act, it was ultimately framed as now presented.

Mr. WHEELHOUSE seconded.

Mr. CARTER thought it would be more courteous to say that the Council had no power to accept the suggestion—that the matter, so far as they were concerned, was *ultra vires*.

Sir W. FOSTER supported Mr. Carter's suggestion.

Sir JOHN SIMON thought there was no reason why dentists had a better claim to special representation than surgeons generally.

Dr. HERON WATSON did not think a member should be elected to sit at that board when matters were discussed which were beyond his comprehension.

Sir W. TURNER said he had no wish to be discourteous, and he was prepared to add to the resolution the following: "and believes that it has no legal power in the matter."

Sir W. FOSTER said he regarded this as a fair claim, which would have to be acceded to some day, and he deprecated any appearance of opposition to it.

Dr. GLOVER agreed that the resolution should be so framed as not to commit this Council to any opinion, especially any hostile opinion, as regards the claims and rights of dentists.

After some further discussion the following was substituted for the last clause of the resolution: "The Council believes that it has no legal power to adopt this suggestion," and in this amended form the resolution was agreed to.

Advertising by Dentists.

The next business was the consideration of the following motion in the name of Mr. Carter: "(*a*) The attention of the Council having been called to the practice of advertising by certain dentists, it is hereby pointed out that the issue of advertisements containing claims of superiority over other practitioners, or unfair depreciation of them, is an offence which may easily be carried so far as to constitute infamous or disgraceful conduct in a professional respect."

Mr. CARTER explained that the motion he originally placed on the paper had been altered as above at the instance of Mr. Muir Mackenzie, because, he said, the other was calculated to commit the Council beforehand to a course of action. But he (Mr. Carter) would propose to make the motion read thus: "That the attention of the Council having been called to the practice of advertising by certain dentists, it is hereby resolved that the issue of advertisements of an objectionable character, and especially of such as contain either claims of superiority over other practitioners or depreciation of them, may easily be carried so far as to constitute infamous or disgraceful conduct in a professional respect."

After a brief discussion the resolution as amended was agreed to, and it was also resolved to communicate it to the medical and dental journals and to the authorities of recognised schools of dentistry.

This concluded the business of the session.

DR. CLIFFORD ALLBUTT, Regius Professor of Physic at Cambridge, will deliver during the Long Vacation a course of twelve lectures on Diseases of the Heart and Arteries. The first of the lectures, which will be open to graduates and students, will be given on Tuesday, July 10th, at 9 A.M., in the Regius Professor's room.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, were at the ordinary meeting of the Council admitted members of the College—viz.:

Adams, Evelyn George Beadon, L.R.C.P. Lond., St. Bartholomew's Hospital.
Addison, Eldred Arthur, L.R.C.P. Lond., Middlesex Hospital.
Annis, Ernest George, L.R.C.P. Lond., St. Mary's and Guy's Hospitals.
Armit, Henry William, L.R.C.P. Lond, St. Bartholomew's Hospital.
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Barnes, Arthur, L.R.C.P. Lond., Charing Cross Hospital.
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McKay, John Gilbert, L.R.C.P. Lond., Melbourne University and King's College Hospital.
Mackinnon, John Alexander, M.B. Toronto, Trinity College, Toronto and London Hospital.

President would inform the Council how they stood, because he was in doubt as to how matters would go supposing they were told they were not doing a legal thing. What power would the Executive Committee have to act in the absence of this Council?

The PRESIDENT said he took it that the Executive Committee would be advised by the lawyers to exercise its powers and go to the Privy Council. The Executive Committee was really the Council itself.

The amendment was put as a substantive motion, and carried by 25 to 4, the names being taken at the request of Sir W. Turner.

Indian, Colonial, and Foreign Preliminary Examinations.

The Education Committee presented an interim report on the preliminary examinations by Indian, colonial, and foreign universities and colleges, in which they stated that since last session they had been occupied in considering the preliminary examinations held by various Indian and colonial bodies, but had experienced considerable difficulty in obtaining exact information with regard to certain of these examinations. It appeared, however, that certain of them did not meet the requirements of the Council as regards general education. Before definitely proposing that these examinations should be removed from the Council's list the committee desired to be empowered to forward to each of the bodies concerned a copy of the draft report which they had prepared on the subject, and invite them to communicate to the committee any explanation or objection they might have to make in regard to them.

On the motion of Dr. TUKE the report was adopted.

Amendment of the Penal Clause.

Mr. BRUDENELL CARTER moved: "That Standing Order, Cap. 14, Clause 14, be amended by the introduction at the end of the following words: Provided that when question (*a*) has been answered in the affirmative, the Council may either proceed to the consideration of questions (*b*) and (*c*) forthwith, or may, on motion from the chair, postpone any decision upon this question, and adjourn the inquiry either *sine die* or until the next or some other future session, and upon the matter coming before the Council again further evidence may, if the Council think fit, be received." In introducing the motion he said its object was fully explained when Mr. Muir Mackenzie was present the other day, and the words now before them were drawn up by him to meet the case. He was particularly anxious that this should be in a form in which it could be applied to dental practitioners, and as he gathered from the standing order that the proceedings for the removal of a name would be essentially the same in the case of a dental practitioner as in the case of a medical practitioner, to which it all applied, he would let the motion stand as it was.

The motion was agreed to.

Application for Registration.

The Scottish Branch Council recommended, in accordance with the opinion of Mr. Muir Mackenzie, that Mr. Edgar Taylor, a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, the date of whose diploma was Oct. 25th, 1883, now residing and practising at Longtown, Cumberland, be admitted to the Medical Register on production by him of his diploma or of sufficient evidence of the facts stated in his application.

On the motion of Dr. GAIRDNER the recommendation w as agreed to.

Students' Registration.

The Students' Registration Committee reported that they met on Thursday, May 24th, and considered various applications for permission to antedate or register under exceptional circumstances, some of which were acceded to and others refused.

Sir DYCE DUCKWORTH moved that the report be received and adopted. For the benefit of the Scotch representatives he said their registrar in Edinburgh sent up to this committee a number of cases which he appeared to consider good enough, but which they in London thought required no consideration, being so impossible of passing that the registrar might really be spared the trouble of sending them up.

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Marris, William Arthur, L.R.C.P. Lond., Mason College and Queen's and General Hospitals, Birmingham.
Marsh, Edward Henry, L.R.C.P. Lond., University College and General Infirmary, Bristol.
Marshall, Augustine, L.R.C.P. Lond., St. Thomas's Hospital.
Mathew, George Porter, L.R.C.P. Lond., Cambridge University and St. Mary's Hospital.
Matthews, Joseph Charles Sherwood, L.R.C.P. Lond., St. Mary's Hospital.
Miall, Charles L'Oste, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Miller, Alfred, L.R.C.P. Lond., Guy's Hospital.
Miller, Walter Frederick, L.R.C.P. Lond., Guy's Hospital.
Mills, Andrew McFarlane, L.R.C.P. Lond., Middlesex Hospital.
Mills, Thomas Ingham, L.R.C.P. Lond., Guy's Hospital.
Miskin, Lonard John, L.R.C.P. Lond., St. Thomas's Hospital.
Morris, Henry, L.R.C.P. Lond., Westminster Hospital.
Morris, Robert Alexander, L.R.C.P. Lond., Durham University.
Mould, Gilbert Edward, L.R.C.P. Lond., St. Mary's Hospital.
Murphy, James Keogh, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Nariman, Sorabji Kharsedji, L.R.C.P. Lond., Bombay University and London Hospital.
Nicholson, Thomas Goddard, L.R.C.P. Lond., St. Thomas's Hospital.
Noble, Joseph William, L.R.C.P. Lond, Cambridge University and St. George's Hospital.
Parry, Leonard Arthur, L.R.C.P. Lond., Guy's Hospital.
Paterson, Marcus Sinclair, L.R.C.P. Lond., St. Mary's Hospital.
Pead, John Hunter, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Phillips, Richard Edward Game, L.R.C.P. Lond., Guy's Hospital.
Pinch, Albert Edwin Hayward, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Poole, John Copeland, L.R.C.P. Lond., Mason College and General and Queen's Hospitals, Birmingham.
Procter, George Herbert, L.R.C.P. Lond., University College and General Hospital, Bristol.
Pugh, William Thomas, L.R.C.P. Lond., Middlesex Hospital.
Renshaw, Herbert Camer, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Rigby, George Owen, M.B. Melb., General Hospital and University, Melbourne.
Rigby, Morris Nortley John, L.R.C.P. Lond., St. Bartholomew's Hospital.
Robertson, William John, L.R.C.P. Lond., Charing-cross Hospital.
Roe, Edwin Ernest William, L.R.C.P. Lond., Guy's Hospital.
Romer, Frank, L.R.C.P. Lond., St. George's Hospital.
Rowbotham, Edgar Joseph, L.R.C.P. Lond., Charing-cross Hospital.
Saunders, Edward Arthur, L.R.C.P. Lond., Oxford University and St. Thomas's Hospital.
Simpson, Frederick Charles, L.R.C.P. Lond., London Hospital.
Slater, George Nathan Oscroft, L.R.C.P. Lond., Firth College, Sheffield, and St. Bartholomew's Hospital.
Smith, Richard Leonard Besly, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Smith, Thomas, L.R.C.P. Lond., London Hospital.
Spicer, Harry, L.R.C.P. Lond., Durham University and St. Bartholomew's Hospital.
Sprawson, Frederick Charles, L.R.C.P. Lond., King's College Hospital.
Stanland, Meaburn Francis, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Starkey, Thomas Albert, L.R.C.P. Lond., University College Hospital.
Steele, William Kenneth, L.R.C.P. Lond., Guy's Hospital.
Sterry, John, L.R.C.P. Lond., St. Bartholomew's Hospital.
Swenden, Benjamin Wood, L.R.C.P. Lond., St. George's Hospital.
Todd, Charles, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Tomlinson, George Hedley, L.R.C.P. Lond., Mason College and General and Queen's Hospital, Birmingham.
Toms, Philip Moysey, L.S.A., Middlesex Hospital.
Tregaskis, Edward Paul Robins, L.R.C.P. Lond., London Hospital.
Underwood, Frank Louis, L.R.C.P. Lond., University College Hospital.
Waithman, James Clarkson, L.R.C.P. Lond., Cambridge University and Middlesex Hospital.
Walker, Frederick, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Warke, Charles Lyle, L.R.C.P. Irel., University College and Royal Infirmary, Liverpool.
Watts, Alexander Minter, L.R.C.P. Lond., University College Hospital.
White, Charles Powell, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Wiggins, Henry, L.R.C.P. Lond., Charing-cross and London Hospitals.
Wilmot, Philip McKinnell Courbould, L.R.C.P. Lond., Guy's Hospital.
Woodhouse, Walter Mansell, L.R.C.P. Lond., St. George's Hospital.

The following gentlemen passed the First Professional Examination in Anatomy and Physiology for the Diploma of Fellow at meetings of the Board of Examiners as follows:—

Thursday, the 17th inst.:—

William Mitchell Stevens, M.R.C.S. Eng., L.R.C.P. Lond., and Claude Churchill Chidell of University College, London; William Edwin Plummer of Guy's Hospital; John Augustus Spear and John Preston Maxwell of St. Bartholomew's Hospital; Arthur Henry Evans of Westminster Hospital; and John Joseph Waddelow, M.R.C.S. Eng., L.R.C.P. Lond., of King's College, London.

Nine candidates were referred back to their professional studies for six months.

Friday, the 18th inst.:—

Albert Elijah Walter of Middlesex Hospital; John Dill Russell of University College, London; Arthur George Butler of Guy's Hospital; and Harold Merriman Cooper, of St. George's Hospital.

Twelve candidates were referred back to their professional studies for six months.

Monday, the 21st inst.:—

William Ilbert Hancock, Hugh Thomas Symes Bell, Charles Herbert Fagge, and Victor Evelyn Collins of Guy's Hospital; Thomas Rupert Hampden Bucknall and Henry James Price of University College, London; Thomas Jeeves Horder of St. Bartholomew's Hospital; Edward Maynard of London Hospital; Francis Riley of Westminster Hospital; Hugh Percy Noble and Cyril Wolrige Alford of Middlesex Hospital; Percy Samuel Lelean of St. Mary's Hospital; John Edward Barrett of Melbourne University; and Raymond John Horton-Smith of Cambridge University.

Three candidates were referred back to their professional studies for six months. Of the 105 candidates who presented themselves for this examination 42 passed and 63 were referred.

UNIVERSITY OF LONDON.—The following were successful at the recent M.B. Pass Examination:—

First Division.—Brice Collyer, St. Bartholomew's Hospital; Harold Bertie Dickinson, University College and Royal Infirmary, Liverpool; Ernest Paul A. Mariette, King's College; William Percy Montgomery, Owens College and Manchester Royal Infirmary; Christopher Thackray Parsons, St. Mary's Hospital.

Second Division.—Evelyn Lancelot Adams, Guy's Hospital; Arthur Percy Allan, Guy's Hospital; Fanny Armitage, London School of Medicine for Women; John Charles Baker, B.A., St. Bartholomew's Hospital; Robert Turle Bakewell, University College; Joseph Richard Buckley, Owens College and Manchester Royal Infirmary; Archie Tillyer Collum, Charing-cross Hospital; Samuel Ernest Gill, St. Bartholomew's Hospital; John Harvey, University College and Royal Infirmary, Liverpool; Thomas William Hicks, St. Thomas's Hospital; Edgar Huntley, Guy's Hospital; Harold Josse Johnson, St. Bartholomew's Hospital; George Lajus Kemp, Guy's Hospital; William Arthur Marris, Queen's College and General Hospital, Birmingham; Alfred Miller, Guy's Hospital; Edgar John Morgan, St. Mary's Hospital; Albert Paling, Middlesex Hospital; Leonard Arthur Parry, Guy's Hospital; Charles Herbert Perram, St. Bartholomew's Hospital; Arthur Edward Price, St. Thomas's Hospital; Courtenay Mansel Rhodes, St. Mary's Hospital; Sidney Sampson Swift, School of Medicine and Royal Infirmary, Liverpool; Thomas Swale Vincent, Mason College; Howard Percy Ward, King's College.

EDINBURGH UNIVERSITY.—The following is the list of the candidates who have passed the first and second professional examinations last month, together with the names of two candidates who have been awarded the Thomson Bursary and the Vans Dunlop Scholarship:—

Old Ordinance: First Professional Examination.—William Anderson, F. J. H. Bateman (B.A.), J. B. Boyd, C. W. Brooks, A. J. W. Buchanan, Joseph Cæsar, C. J. Caddick, Selwyn Champion, M. N. Chaudhuri, E. V. Collins, Matthew Corry, T. M. Coutinho, G. L. K. Finlay, J. V. Fox, W. C. H. Forster, W. H. Goldie, James Grieve, S. J. Grinsell, W. J. H. Hislop, J. T. Hurst, A. H. James, F. F. Kerr, John Mackenzie, Marcus Mackenzie, M. W. Manuk, B. N. Mullan, E. J. Nichols, D. J. C. Oliver, F. W. Rigby, N. H. Ross, D. C. Sethna, John Stevenson, G. R. Twomey, Mohamed Varis, R. H. Walter, J. O. Williams, and W. E. Williams.

New Ordinances.—D. V. M. Adams, A. J. T. Allan, V. G. Alexander, J. R. Anderson, E. P. Baumann, William Bell, H. L. S. D. Belasco, Stanley Branch, William Burns (M.A.), A. E. Burroughs, David Chow, R. V. Cowey, Robert Crawford, Robert Cumming, L. W. Davies, R. J. Dick, W. H. Dickinson, J. E. Dods, C. L. Dunn, W. S. Eaton, Duncan Forbes, A. Fordyce, J. S. Fraser, A. T. Gailleton, Alexander Goodall, J. H. Gordon, William Gorrie, J. T. P. Heatley, Rowland Hill, Patrick Kinmont, F. O. Lasbrey, E. W. Lewis, J. S. Low, W. C. M'Kechnie, R. W. Mackenna, W. W. Maxwell, James Miller, J. D. S. Milln, L. H. B. Mills, W. J. Nutter, F. M. Parry, H. R. Phillips, Robert Pugh, J. A. Raeburn, J. M. Reid, Thomas Rogerson, R. F. M. Scott (with distinction), W. M. Smith, Edgar Somerville, G. H. Stewart, William Tarr, Henry Taylor, W. B. Thain, A. H. Thompson, G. E. Twigge-Molecey, W. E. Wallis, W. C. Wilson, Alic Wood, A. G. Worrall, and G. J. Young.

Second Professional Examination.—James Allison, H. H. Balfour, James Bannerman, N. D. Bardswell, W. J. Bell, G. J. Blackmore, J. B. Blaikie, A. S. Brass, H. S. Brockway, Daniel Brough, Scott Carmichael, H. C. Colman, A. J. Copplestone, W. J. C. Coulthard, John Crawford, R. W. Cunningham, James Davidson, J. M. Dawson, M. V. Dee, D. F. Dewar, Arthur Dickson, A. F. Evans, David Evans, William Evans, F. W. B. Fitchett, A. W. Fletcher, J. A. Forrest, W. C. H. Forster, G. B. French (with distinction), Frederick Gardiner, J. W. Geddes, W. E. Gibbons, F. M. Gibson (B.Sc.), John Gilchrist, J. D. Gilruth (M.A.), Lewis Grant (M.A.), D. J. Graham, W. T. Grant, James Gray (M.A.), Rhodes Haygarth, C. M. Hector, George Henderson, G. P. Henderson, J. H. Henderson (B.A.), J. J. Hewison (M.A.), J. T. Hewetson, A. L. Husband, F. R. Jones, George King, James Kirk, J. H. Lamb, H. A. Leebody, G. R. Leighton, R. M. Leith (with distinction), W. J. Lewis, William Lillie, G. R. Livingston, J. R. Lord, A. M. Love, W. L. Lyall, Alexander MacCarthy-Morrogh, John M'Donald, W. M. Macdonald, W. C. W. M'Dowell, T. H. Macfie, John Maciver D. M. Mackay, Charles MacLaurin, John Macmillan, J. L. Marjoribanks, W. R. Mander, J. S. Martin, James Massey, G. H. Masson, Joseph Mason, R. A. Milne, J. R. Muir, J. G. P. Murray (with distinction), A. G. Naylor, S. D. Ogilvy, T. T. Ormerod, Richard Owen, A. D. Peill, W. J. Penfold, W. H. Price, G. L. Procter, R. B. Purves, J. K. Raymond, E. S. Reid, E. G. Richards, Hugh Richardson, Thomas Roberts, R. S. Rodger, R. L. Roe, L. C. Saldanha, A. T. Sampson, E. W. K. Scott, J. G. C. Scott, T. M.

Scott, T. B. M. Sherwen, C. M. Simpson, E. M. Skeete (B.A.), J. E. W. Somerville, James Stenhouse, Alexander Steven, J. B. Stewart, John Stoddart, J. C. Stuart (with distinction), A. C. Sturrock, M.A. (with distinction); D. C. Sutton, H. F. L. Taylor, F. S. C. Thompson, W. H. Thomson, David Waterston, James Watt (B.A.), H. G. Waugh, G. A. Welsh, L. A. Williams, G. H. Wilson, and A. D. Yule (with distinction).

The following candidates have passed in Anatomy and Physiology:—

John Ballantyne, Edwin Bramwell, John Bruce, W. J. Buchanan, W. H. Carse, J. H. Dixon, H. O. Dougall, A. W. Essmon, A. M. Fleming, Thomas Gibson, W. G. C. Geekie, William Hewison, W. H Hill, J. F. Lindsay, A. P. Low, Stuart M'Donald, A. D. Macpherson (M.A.), M. W. Manuk, F. H. Merry, William Mowat, J. S Norwell (B.Sc.), A. L. Owen, A. J. Park, W. T. Ritchie, W. H. Robb, David Rodger, J. T. Shirlaw, F. O. de Souza, G. E. Stewart, Robert Thornton, Andrew Wallace, A. E. White, and G. F. Whyte.

The Thomson Bursary, in the subjects of the Preliminary Examination, has been awarded to Mr. James Masson.

The Vans Dunlop Scholarship, in the subjects of Anatomy, Physiology, Materia Medica, and Pathology, has been awarded to Mr. A. Corsar Sturrock, M.A.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATION.—The following gentlemen have passed the necessary examination for the Fellowship of the College:—

Patrick Thomas Bolger, New Zealand; Frederick William Condon, Ballyshannon; Julius Cæsar, Sheppey, Kent; Jeremiah Dowling, Tipperary; Charles Edward Ryan, Tipperary; Richard P. Ryan, Norwich; John Goodwin Shea, Chesterfield; Michael Thomas Yarr, Army Medical Staff.

The following gentlemen have passed the primary portion of the examination for the Fellowship of the College:—

Richard Lane Joynt, Dublin; Joshua Pim, Kingstown.

The following gentlemen having passed the necessary examination, have been admitted Licentiates in Dental Surgery of the College:—

Sydney Aveline, Reading; Richard Neller Kiddle, London; Randolph Llewelyn Pollard, London; Ebenezer Poock, London; and Francis Owen Stoker, Dublin.

The following gentlemen have been elected examiners to examine candidates under the conjoint regulations with the Apothecaries' Hall:—Anatomy: M. A. Ward. Surgery: J. Dallas Pratt. Physiology, Histology, and Biology: G. B. White. Pathology: C. Coppinger. Midwifery: J. O'Donovan. Ophthalmology: F. Odevaine.

FOREIGN UNIVERSITY INTELLIGENCE.—*Cracow:* The selections of the Professiorial Senate for the Chair of Midwifery and Gynæcology are: (1) Dr. Jordan; (2) Dr. Mars, both of Cracow; and (3) Dr. von Swiecicki, of Posen.—*Marburg:* Dr. F. Tuczek, Extraordinary Professor of Mental Diseases, has been raised to the position of Ordinary Professor.—*Naples:* Dr. D. Franco has been recognized as *privat-docent* in Hydrology.—*New York (Bellevue Hospital Medical College):* Dr. William P. Northrup has been appointed Assistant Professor of Pædiatrics.—*St. Petersburg (Military Medico-Chirurgical Academy):* Drs. Müller and N. Chermak have been recognized as *privat-docenten* in Midwifery and Gynæcology, Dr. J. F. Seleneff as *privat-docent* in Dermatology and Syphiligraphy, and Dr. D. D. Popoff as *privat-docent* in Histology and Embryology.—*Vienna:* Drs J. Gruber and A. Politzer, Extraordinary Professors, have been raised to the rank of Ordinary Professors of Otology; Dr. Karl Stork, Extraordinary Professor of Laryngoscopy, has been raised to the rank of Ordinary Professor; Drs. Victor R. von Hacker and Julius Hochenegg, *privat-docenten* in Surgery, have been raised to the rank of Extraordinary Professors; Dr. O. von Weiss has been recognised as *privat-docent* in Midwifery and Gynæcology.

THE annual provincial dinner of the Irish Medical Schools' and Graduates' Association will be held at the Midland Hotel, Bradford, Yorks, on Saturday, June 30th, at 7 P.M., Dr. Richard Heath, President, in the chair. A large gathering of members resident in the northern and midland counties is expected. Dr. T. W. Hime is acting as local secretary of the dinner committee. The council will meet before the dinner for the election of new members.

THE annual dinner of the West London Medico-Chirurgical Society was held on the 30th ult. at the Criterion Restaurant. More than 100 members and guests were present. The President, Dr. Donald Hood, mentioned that the society, though it had existed only twelve years, now numbered more than 400 members. Among the guests were Sir William Broadbent (the Cavendish Lecturer) and Mr. Eastes (the President of the Harveian Society).

THE RADCLIFFE TRAVELLING FELLOWSHIP.—Mr. Gabriel William Stabel Farmer, M.B., B.Ch., M.R.C.S. Eng., of Balliol College, Oxford, and the London Hospital, has been elected Radcliffe Travelling Fellow for 1894.

SUPERANNUATION ALLOWANCE.—Mr. John C. Smith, M.R.C.S., lately medical officer of the workhouse, Great Yarmouth, has been granted a superannuation allowance of £86 13*s.* 4*d.* per annum.

WE have received from the hon. secretary of the Midwives' Registration Association a copy of the scheme for the registration of midwives which has been drawn up by the Association. We notice that it is suggested in the scheme to invite the General Medical Council to decide the qualifying course of instruction, the scope of the examination, and the appointment of the examiners.

THE COLLIE AND BLOXHAM CASE.—In the Queen's Bench Division on Thursday afternoon Mr. Justice Hawkins and a special jury had before them the consolidated actions of Collie *v.* Bloxham and Bloxham *v.* Collie. The counsel for Mr. Bloxham informed the Court that the dispute had been made a matter of arrangement, the terms of which were: "That all imputations of professional misconduct are mutually withdrawn. Dr. Bloxham undertakes not to practise within three miles of Dr. Collie's present residence for ten years; the counter-claim of Dr. Collie against Dr. Bloxham is abandoned, and no costs will be taxed on either side or one party against another." In reply to Mr. Justice Hawkins, Mr. Lockwood stated that these terms had been agreed upon.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Epidemics in Pauper District Schools.

SIR JOHN GORST has asked the President of the Local Government Board to direct a return to be made of the number and dates of the epidemics of ophthalmia, scarlet fever, measles, throat complaints, and other infectious maladies which have broken out during the last ten years in the pauper district schools belonging to the metropolitan unions, specifying in the case of each epidemic the number of children attacked, the duration of the treatment of cases, the number of deaths and of permanent physical disablement, and the total extra cost occasioned to the ratepayers of the metropolis by the outbreak.

The Prisons Committee.

The question of the constitution of the committee appointed to inquire into the existing administration of English prisons has now been definitely decided. The committee will be composed of Sir Algernon West, K.C.B., Sir John Dorington, M.P., Mr. Haldane, Q.C., M.P., Miss Orme, Dr. J. H. Bridges, and Mr. de Rutzen, with Mr. Herbert Gladstone, M.P., as chairman. Among the subjects which will occupy their attention will be the definition of "young" applied to a prisoner, to what extent young or first offenders should be differently treated, and the question of prison labour, with special reference to the moral and physical condition of the prisoner. The object of the committee is to obtain information and suggestions on various important points, and Mr. Asquith has explained that the appointment of the committee is not to be looked upon as implying want of confidence in the present prison administration.

HOUSE OF COMMONS.

THURSDAY, MAY 24TH.

Lunacy in Ireland.

Mr. John Redmond asked the Chief Secretary to the Lord-Lieutenant of Ireland if he had observed that the special report of the inspectors of lunatics on the alleged increase of insanity, recently presented, conflicted with their statutory reports annually laid before Parliament on the subject of increase, and whether any explanation of the difference could be given?—Mr. John Morley replied that the inspectors of lunacy informed him that in the statutory reports annually presented to Parliament they expressed the opinion that the increase in Ireland was absolute as well as relative, and they formed that opinion upon the increasing number of first admissions to asylums and the large number of cases brought under their official cognisance. From fuller inquiry and having regard to special information obtained in the reports of different lunacy districts which were published in the return he laid on the table of the House, the inspectors in their special report had now expressed the opinion that, as at present advised, the absolute increase of insanity was not large and was limited to certain districts. The reports of the resident medical superintendents upon which the special report in question had been founded would be published in full in the next statutory report of the inspectors, which would be laid on the table of the House in the course of a couple of months.

FRIDAY, MAY 25TH.

Pleuro-Pneumonia.

Mr. Gardner informed Mr. Chaplin that the recent outbreak of pleuro-

pneumonia in the Isle of Thanet was probably due to the introduction of animals from the neighbourhood of London.

MONDAY, MAY 28TH.

Vivisection Returns.

Mr. Asquith, in reply to Mr. John Ellis, who wished to know whether the figures referring to experiments upon living animals were obtained from the licencees who performed the experiments, and what steps were taken to verify their accuracy, said the returns were made by the licencees, and no reason had been found to doubt their accuracy. Of the licensed places in actual use, nineteen had been visited twice, twenty three times, and many four or five times. The number of visits made without notice, was 109, and careful observation was kept on the operation of the Act.

Tuberculosis Committee.

Mr. Shaw Lefevre explained to Mr. Chaplin that a long and elaborate experimental inquiry, and the illness of one of the inquirers had delayed the completion of the report of this committee. The committee, however, were about to meet again, and the report might be expected shortly.

The Waltham Explosions.

Leave was obtained to move the adjournment of the House, and an animated discussion took place on the danger to life and property to which the workmen engaged in the manufacture of explosives and the inhabitants of Waltham Abbey are exposed and to the want of effective precautions. Four explosions have occurred in six months, and the Government were asked what steps they were going to take that the future safety of the workmen and inhabitants of Waltham Abbey might be ensured.—Mr. Campbell-Bannerman said he fully appreciated the importance that the House must attach to the matter, but repudiated the suggestion that either the Secretary of State or the financial secretary were guilty of any undue delay or of any disposition to hide the facts from the House. The War Office had shown its sense of the importance of the subject by the appointment of a committee to inquire into the whole matter, and instructions had been given that the recommendations of the committee should be carried out as soon as possible.—The motion for adjournment was lost.

TUESDAY, MAY 29TH.

Lung Disease in Cattle.

Dr. Farquharson asked Mr. Gardner whether he would cause careful bacteriological observations to be made in cases of suspicious lung disease in cattle landed from Canada, according to the suggestions made by Professor Adami of M'Gill College, Montreal.—The President of the Board of Agriculture said that as far as he could gather bacteriological investigations in the case of pleuro-pneumonia had not been productive of any valuable results. He would, however, be glad to confer with the hon. gentleman upon the subject.

THURSDAY, MAY 31ST.

Milk Adulteration.

Sir George Trevelyan, answering a question put by Mr. A. C. Morton, said that in the county of Midlothian several complaints had been made about the adulteration of milk and cream, and the county council had decided to appoint an inspector and an analyst under the Food Adulteration Acts.

IN COMMITTEE.

The Scottish Local Government Bill.

The Grand Committee of the House of Commons to which the Scottish Local Government Bill has been referred met for the first time on Thursday, May 31st, and proceeded with the consideration of the measure. In clause 4 of the Bill it is proposed that the new Local Government Board in Scotland shall include a sheriff principal and a registered medical practitioner, who shall also be registered on the Medical Register as the holder of a diploma in Sanitary Science, Public Health, or State Medicine.—Mr. Cochrane moved to substitute for these two gentlemen "two persons versed in the administration of local government in town councils or county councils."—Mr. MacGregor argued in favour of the registered medical practitioner being retained, saying that if his advice were desirable so also was his vote.—Sir Charles Cameron spoke in the same line.—Mr. T. W. Russell said he had no doubt the medical man would be found the most useful member of the Board. Such was the case in Ireland, where they enjoyed the services of a most accomplished medical gentleman.—Dr. Farquharson said that at present the Board of Supervision was essentially weak as a sanitary board. He wanted to see the new Board representative in the fullest sense and having a member who could advise it upon scientific and sanitary matters and do so with all the authority of a member.—Sir George Trevelyan, the Minister in charge of the Bill, said it would be very difficult to get a better representative of local administration in Scotland than a medical man who had thoroughly taken part in that administration in one of its most important forms.—As the result of some further discussion the amendment was withdrawn. The subject, however, will be raised again at a later stage of the proceedings on the Bill.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London, W.C.

Hydatid Disease. By the late John D. Thomas, M.D. Lond., F.R.C.S. Vol. II. A Collection of Papers on Hydatid Disease, edited by Alfred A. London, M.D. Lond. 1894. pp. 166. Price 5s.

A Manual of Diseases of the Ear. By Geo. P. Field, M.R.C.S. Fifth Edition. Illustrated. 1894. pp. 422. Price 12s. 6d.

BALE, JOHN, & SONS, Great Titchfield-street, London.

Pharmacopœia of the National Hospital for Diseases of the Heart, &c. 1894.

CHURCHILL, J. AND A., New Burlington-street, London.

Materia Medica, Pharmacology, and Therapeutics: Inorganic Substances. By Chas. D. F. Phillips, M.D., LL.D., F.R.S. Edin. Second Edition. 1894. pp. 598. Price 21s.

DAMRELL & UPHAM, Boston, U.S.A.

Lectures on Surgery. By D. W. Cheever, M.D. Harv. 1894. pp. 591.

DIGBY, LONG, AND CO., Bouverie-street, London, E.C.

The Scientific Basis for a Future State; or, Darwin Developed. By W. J. Spratly. pp. 196. Price 3s. 6d.

EYRE AND SPOTTISWOODE, East Harding-street, Fleet-street, London, E.C.

Official Copy, University of London. General Register. Part II. March 31st, 1894. pp. 558. Price 27s. 6d.

University of London. The Calendar for the Year 1894-95. Part I. Charters, Regulations, Lists, &c. Price 3s.

The Psychological Review, May, 1894 (Macmillan & Co., London).—Proceedings of the Society for the Study of Inebriety, May, 1894 (H. K. Lewis, Gower-street, London).—Weekly Abstract of Sanitary Reports issued by the Supervising Surgeon-General, U.S. M.H.S.; vol. viii., Nos. 1 to 52, 1893 (Government Printing Office, Washington, 1894).—Anuele Institutului de Pathologie si de Bacteriologie, publicate de Victor Babes; Anul ii., 1889-90; parte iii. (Annales de l'Institut de Pathologie et de Bacteriologie de Bucarest, publiées par Victor Babes; 2ème année, 1889-90; 3ème partie); Imprimeria Statului, Bucuresci, 1892.—Annals of Ophthalmology and Otology, edited by Jas. P. Parker, M.D., and others; published quarterly; April, 1894 (Dr. J. P. Parker, St. Louis, Missouri, U.S.A.).—Concise Guide to the Mitchell Library, Glasgow; second edition, 1894 (David Bryce & Son, Glasgow).

We defer till next week the completion of this list.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

AITKEN, Mr., has been appointed Public Analyst for the County of Aberdeen.

ANDREW, B. H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Haddenham Sanitary District of the Ely Union.

APPLEYARD, F. E., B.A. Cantab, L.R.C.P, M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

ATKINS, S. E., L.R.C.S. Irel., has been appointed Medical Officer for the Dalwood Sanitary District of the Axminster Union.

BOOTH, JAS., L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been appointed Government Medical Officer at Blackall, Queenstown.

COLLCUTT, A. M., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

COOKE, C. W., M.D. Lond., L.R.C.P., M.R.C.S., has been reappointed a Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

CORLETTE, C. E., M.B., Ch.M. Syd., has been appointed Senior Resident Medical Officer to the Sydney Hospital, New South Wales.

CORY, G. C., M.R.C.S., has been appointed Medical Officer to the Wallarah Coal Miners at Catherine Hill Bay, near Lake Macquarie, New South Wales.

CUFF, A. W., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

DAVIES, LESLIE, M.B. Melb., has been appointed Health Officer for the Shire of Wooryal, Victoria, and Public Vaccinator for Leongatha, Victoria, Australia.

DAVIES, REES F. E., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the new Tredegar Sanitary District of the Bedwellty Union, vice Mansell.

DAY, FRED. A., M.B., Ch.M. Edin., has been appointed Health Officer for the Shire of Ballan, Victoria, Australia.

DEANE, EDWARD, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Caversham Sanitary District of the Henley Union, vice Cockran, resigned.

DE LISLE, F. J., L.R.C.P., L.M. Edin., has been appointed Health Officer for the Port of Napier, New Zealand, vice Hitchings.

DENSHAM, A. B., M.R.C.S., L.R.C.P., L.D.S., has been appointed Demonstrator in the London School of Dental Surgery, Leicester-square.

DENTON-FETHERS, PERCY, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., has been appointed Health Officer for the Shire of Cranbourne, Victoria, Australia.

DINWOODIE, WILLIAM, M.D., C.M. Glasg., has been appointed Medical Officer for the Elsdon Sanitary District of the Rothbury Union, vice Peake, resigned.

FENWICK, P. C., L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

FIASCHI, T. H., M.D., Ch.D. Pisa, has been appointed Honorary Surgeon to the Sydney Hospital, New South Wales.

FISHER, J. H., F.R.C.S., L.R.C.P., has been reappointed Ophthalmic House Surgeon to St. Thomas's Hospital.

FULTON, GEO. C. H., M.B., C.M. Glasg., has been appointed Medical Officer to the New Sanatorium, Eston Local Board District, Middlesbro'-on-Tees.

FYFFE, EDWARD H., M.B., Ch.M. Glasg., has been appointed *pro tem.* Public Vaccinator, Fitzroy, Victoria, Australia.

GREEN, A. S., L.R.C.P., L.M., L.R.C.S. Edin., has been appointed Medical Officer for the Fourth Sanitary District of the Leeds Union.

GRIFFITHS, W. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Andover Union.

GROVE, WILLIAM R., M.D. St. And., M.R.C.S., has been reappointed Medical Officer for St. Ives, Hunts.

GRÜNBAUM, A. S. F., B.A. Cantab., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

HAINWORTH, E. M., B.Sc. Lond., L.R.C.P., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

HALE, E. T., L.R.C.P., L.R.C.S., L.M. Edin., has been appointed Medical Officer for the Fourth Sanitary District of the Bedminster Union, vice Edmund, resigned.

HANCOCK, ROBT., M.R.C.S., has been appointed Government Medical Officer at Childers, Queensland.

HARRIS, J. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Frittenden Sanitary District of the Cranbrook Union, vice Wood, resigned.

HARTNELL, E. B., has been appointed Junior House Surgeon to Chesterfield Hospital.

HELSHAM, H. P., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the No. 1 Sanitary District of the Loddon and Clavering Union, vice Metcalfe, resigned.

HOYSTED, L. N., L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for Smythesdale, also Health Officer for Browns, Scarsdale, and Smythesdale, Victoria, Australia.

HULTON, HENRY E., M.A., M.B. Cantab. (late Assistant Physician), has been appointed Physician to the Manchester Hospital for Consumption and Diseases of the Throat and Chest, vice Ransome, made Consulting Physician.

JAFFÉ, C. S., M.B., B.S. Lond., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

KING, A. F. W., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

KOETTLITZ, M., L.R.C.P. Lond., has been appointed Medical Officer for the Hurnstenley Sanitary District of the Auckland Union.

MCGOWAN, ROBERT, L.F.P.S. Glasg., has been appointed Government Medical Officer and Vaccinator for the District of Silverton, New South Wales.

MILES, WILLIAM ERNEST, F.R.C.S. Eng., has been appointed House Surgeon to the Metropolitan Hospital

MILTON, A. R. O., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

MISKIN, L. J., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

MITCHELL, ARTHUR MARTIN, M.A., M.B., B.C. Cantab., has been appointed Assistant House Surgeon to the Metropolitan Hospital.

MOORE, T. C., M.D. Dubl., Ch.B., has been appointed Medical Officer of H.M. Prison at Napier, New Zealand, vice Hitchings.

MORRIS, SYLVANUS GLANVILLE, M.B., Ch.M. Edin., has been appointed Surgeon to the Hendreforgan, Brynhenllysg, Gilfach, and other Collieries.

MURPHY, WILLIAM P., M.B., Ch.B. Melb., has been appointed Public Vaccinator for Wood's Point, Victoria, Australia.

NICHOLSON, T. G., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

NIX, R. E., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

PERSHOUSE, F., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

RAKE, A. T., M.B Lond., F.R.C.S., has been appointed Registrar and Pathologist to the East London Hospital for Children, Shadwell, E.

REID, JAS. A., M.D., Ch.M. Aberd., has been appointed Health Officer for the Borough of Sale, Victoria, Australia.

RICHARDSON, S. W. F., B.Sc. Lond., L.R.C.P., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

RING, W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Orange Hospital, New South Wales.

ROLLESTON, LAUNCELOT W., M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician to the Metropolitan Hospital.

RUDALL, J. F., M.B., B.S. Melb., M.R.C.S., has been reappointed Ophthalmic House Surgeon to St. Thomas's Hospital.

RUDD, ARTHUR, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the First St. George's Sanitary District of the Parish of St. Giles, Camberwell.

SANTI, PHILIP R. W., L.R.C.P. Lond., F.R.C.S., has been appointed Surgical Registrar to the Westminster Hospital, S.W.

SAUNDERS, WM. S., M.D., Castleton Medical Coll. U.S., M.R.C.S., has been permanently appointed Medical Officer of Health and Public Analyst for the City of London.

SENIOR, E. W., M.R.C.S., L.R.C.P., has been appointed House Physician to the East London Hospital for Children, Shadwell, E., vice McGregor.

SYME, W. S., M.B., C.M. Edin., has been appointed Medical Officer for the Third Sanitary District of the St. Neots Union.

SYMONS, R. FOX, L.R.C.P., M.R.C.S., has been appointed a Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

THOMPSON, G. W., B.A., M.B., B.C. Cantab., L.R.C.P. M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

TROUTBECK, HENRY, M.A., M.B., B.C. Cantab., has been appointed House Surgeon to the East London Hospital for Children, Shadwell, E., vice Fish.

VAN SOMEREN, G. A., M.D., Ch.M. Edin., has been appointed Medical Officer to the Orange Hospital, New South Wales.

WHITE, T. G., L.K.Q.C.P., L.M., L.R.C.S. Irel., has been appointed Surgeon to the Geraldton Hospital, Queensland.

WICKENS, GEORGE F., M.B., Ch.M. Glas., has been appointed Health Officer for the Shire of Deakin, Victoria, Australia.

WINDSOR, C. W., M.A., M.B., B.C. Cantab., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

WILSON, JOHN GORDON, M.A., M.B., has been appointed Dispensary Surgeon to the Tradeston Dispensary of the Victoria Infirmary, Glasgow.

WINTER, L. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the No. 2 Sanitary District of the Bridge Union, vice Sutton, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BRIDGWATER INFIRMARY.—House Surgeon. Salary £70 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Board and residence and allowance for washing provided.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—House Surgeon for two years. Salary £100 per annum. Also Assistant House Surgeon for six months. Honorarium £15. Both officers will be provided with board (exclusive of beer, wine, and spirits), rooms in hospital, and attendance.

DEVIZES UNION.—Medical Officer for the Sixth District of the Union. Salary £25 a year, with the usual extra fees. Applications to the Clerk, Devizes.

EARLSWOOD ASYLUM FOR IDIOTS, Redhill, Surrey.—Fully-qualified practitioner; married preferred. Salary £500, with furnished residence in the building, together with coals and gas. Applications to the Board of Management at the offices, 36, King William-street, London Bridge, E.C.

LEICESTER INFIRMARY.—Assistant House Surgeon for one year. Salary £80 per annum, with board, apartments, and washing.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich.—Honorary Surgeon.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—House Physician for six months. Salary at the rate of £60 per annum. Applications to the Secretary, 27, Clement's-lane, E.C.

PARISH OF ST. PANCRAS.—Medical Superintendent of St. Pancras (separate) Infirmary, Dartmouth Park-hill, N. Salary £400 per annum, with house, coals and gas, washing, and paid substitute. Applications to the Clerk to the Guardians, Vestry Hall, Pancras-road, N.W.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Board, lodging, and washing provided.

ROYAL BERKS HOSPITAL, Reading.—Assistant House Surgeon for six months. Board and lodging provided.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Curator for one year. Non-resident. Salary £120 per annum.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant for six months. Board and residence provided.

SUNDERLAND BOROUGH LUNATIC ASYLUM.—Medical Superintendent. Salary £350 a year, with furnished house, board for self and wife (if married), washing, coals, light, two servants, and use of garden. Applications to the Clerk to the Visiting Committee, Town Hall, Sunderland.

UNIVERSITY OF EDINBURGH.—Chemical Assistant to the Professor of Physiology. Salary £150 per annum. Applications to the Secretary of the Edinburgh University Court before July 1st.

Births, Marriages, and Deaths.

BIRTHS.

BAKER.—On May 28th, at Norfolk-terrace, W., the wife of William H. Baker, M.R.C.S., L.R.C.P., of a daughter.

BARRET.—On May 21st, at Belsize-road, Hampstead, the wife of R. E. Barret, M.D., of a daughter.

REYNOLDS.—On May 25th, at Lordship-lane, the wife of Ernest J. Reynolds, M.R.C.S., L.R.C.P., of a daughter.

WARRINER.—On May 29th, at De Crespigny Lodge, Denmark-hill, the wife of Dr. J. Warriner, of a son.

WIGMORE.—On May 25th, at Compayne-gardens, South Hampstead, the wife of Arthur William Wigmore, L.R.C.P. Lond., of a son.

MARRIAGES

MATTHEWS—MARTIN.—On May 22nd, at Crawley, Sidney Phillp Matthews, M.R.C.S., L.R.C.P., of Southwick, Hants, to Beatrix Mary, sixth daughter of T. H. Martin, Surgeon, of Crawley, Sussex.

WHITAKER—EADS.—On May 23rd, at St. Peter's Church, Weston Favell, Northants, by the Rev. J. R. Hussey, Vicar of St. Matthew's, Northampton, James Smith Whitaker, M.R.C.S., L.R.C.P., of 20, Regent's-road, Great Yarmouth, eldest son of the late John Whitaker of Hawes, Yorkshire, to Ellen Louisa, only daughter of George Eads, Kingsley Park, Northampton, late of the Manor House, Moulton.

WHITLING—HOYLE.—On May 16th, at St. James's Church, Benwell, Newcastle-on-Tyne, Henry Townsend M. Whitling, M.B., B.S., M.R.C.S.E., L.R.C.P., only son of the late Henry Townsend Whitling, of Croydon, Surrey, to Nellie, second daughter of Theodore Hoyle, Esq., Newcastle-on Tyne.

DEATHS

HUNT.—On May 27th, at St. George's-square, S.W., John Hunt, M.R.C.S., aged 71.

KIPLING.—On May 29th, at Romaldkirk, William Kipling, M.R.C.S., L.S.A., L.R.C.P. Lond., aged 47, eldest son of the late J. N. Kipling of Romaldkirk.

LEMON.—On May 25th, Oliver Lemon, M.R.C.S., of 12, Highbury-grange, London, late of King's Langley, Herts, aged 74. No flowers. Friends will kindly accept this intimation.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Great Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Great Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Chelsea (2 P.M.), Soho-sq. (2 P.M.), North West London (2 P.M.)

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq, W.C.).—Mr. Edmund Owen: On the Treatment of Carious Milk Molars Casual Communications:—Mr. S. A. Coxon: The Adjustment of Spiral Springs.—Mr. W. G. Routledge: A Low Voltage Motor

WEDNESDAY.—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Crawford, Dr. Blacker, Dr. Lewers, Dr. Horrocks, Dr. Cullingworth, and Mr. J. Bland Sutton. Dr. Remfry: Ligature and Division of the Upper Part of both Broad Ligaments, and the Result as Compared with that following Removal of the Uterine Appendages.—Dr. Braithwaite: A case of Adenoma of the Portio Vaginalis Uteri forming a Depressed Sore or Ulcer.

LECTURES AND ADDRESSES.

MONDAY.—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. Raymond Johnson: Tumours of the Breast.
LONDON POST-GRADUATE COURSE.—London Throat Hospital, Great Portland-street, W., 8 P.M., Mr. G. Charles Wilkin: Aural Polypi.
ST. JOHN'S HOSPITAL FOR SKIN DISEASES (Leicester-sq., W.C.).—6 P.M. Dr. Morgan Dockrell: Syphilides.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Corner: Developmental Insanity; Circular Insanity.

WEDNESDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: Lupus Vulgaris.
METROPOLITAN HOSPITAL (Kingsland-rd., N.E.).—5 P.M. Mr. Walsham: Diseases of the Nose and Naso-pharynx. (Post-graduate Lecture.)
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. Raymond Johnson: Tumours of the Breast.
WEST LONDON HOSPITAL (Hammersmith-rd., W.).—5 P.M. Mr. Keetley: Orthopædic and other Surgical Cases. (Post-graduate Course)

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Mr. Bernard Pitts: Treatment of certain Congenital Deformities in Children.—National Hospital for Paralysed, Bloomsbury, 2 P.M., Dr. Charlton Bastian: Aphasia and other Speech Defects.—Central London Sick Asylum, Cleveland-street, W., 5.30 P.M., Mr. Watson Cheyne: Cases in the Wards.

FRIDAY.—LONDON HOSPITAL MEDICAL COLLEGE.—4 P.M. Mr. Jonathan Hutchinson: On the Eruptions which occur after Vaccination.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. Raymond Johnson: Tumours of the Breast.
ROYAL INSTITUTION.—9 P.M. Mr. C. Vernon Boys: The Newtonian Constant of Gravitation.

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Percy Smith: Alcoholic Insanity.

During the week marked copies of the following newspapers have been received:—*Barrow Herald, Bolton Journal, Hereford Journal, Southampton Echo, Colchester Gazette, Evesham Journal, Bath Gazette, Caterer, Huddersfield Chronicle, Kettering Guardian, Evening News and Post, Irish Independent, Liverpool Mercury, Times of India, Bristol Times and Mirror, Sheffield Independent, Pioneer Mail, Birmingham Argus, Western Morning News, Manchester Examiner, Sussex Daily News, Sanitary Record, Reading Mercury, City Press, West Middlesex Standard, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Hertfordshire Mercury, Surrey Advertiser, Architect, Guy's Hospital Gazette, Scotsman, Ulverston News, Citizen, Morning Post, Scarborough Post, English Mechanic, Health, Temperance Record, Australasian Gazette, Penrith Observer, Lincoln Chronicle, West Middlesex Advertiser, Malton Gazette, Newry Standard, Canadian Gazette, Ayrshire Post, Cambridgeshire Times, Norfolk Daily Standard, Scottish Leader, Australian Medical Journal (Melbourne), Kerry Sentinel, Courrier de la Presse (Paris), May's Aldershot Camp Gazette, Daily Gazette (Exeter), Galignani Messenger, Kenilworth Advertiser, Standard, &c., &c.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, May 31st, 1894.

	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
May 25	30·08	N.E.	55	50	114	70	44	..	Bright
„ 26	29·77	N.	50	48	97	57	46	..	Cloudy
„ 27	29·65	N.	47	44	100	54	44	0·31	Cloudy
„ 28	29·69	W.	49	45	100	55	41	0·02	Cloudy
„ 29	29·60	W.	48	45	104	59	41	0·03	Hazy
„ 30	29·73	W.	52	49	109	62	44	0·19	Cloudy
„ 31	29·76	S.W.	53	50	99	58	44	0·18	Cloudy

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

A JUDGE ON MEDICAL CERTIFICATES.

MR. JUSTICE HAWKINS was asked last week to postpone a trial on account of the ill-health of one of the parties, in whose behalf a medical certificate of ill-health was produced. His lordship is reported to have said that he would not act on a medical certificate, and must have an affidavit as to what the facts were. He recollected a case being put off on a medical certificate that a lady was so ill that she could not stir, and yet within half an hour afterwards he himself saw her walking about the courts. We cannot help thinking this solitary case rather an unfair basis for Mr. Justice Hawkins' remark about medical certificates and for the laughter which followed it. The illnesses of ladies are sometimes puzzling even to a medical man; and the fact that the lady was in the court so soon after the certificate does not show that the medical man acted either in bad faith or in bad judgment. By all means let medical men be more careful in giving medical certificates, and never give them when they would not be prepared to make an affidavit. But we demur to Mr. Justice Hawkins' estimate of the value of such documents, and think the impeachment of them on so slender a basis is as unreasonable as it would be to impeach evidence on oath because occasionally a witness seems to bring the practice into discredit.

Alpha.—The patient himself is responsible to the medical man for his fees for attendance. Our correspondent is entitled to a guinea a day for his evidence, and for mileage a sum not exceeding 3d. a mile.

TRAINING SCHOOLS FOR NURSES.

A Subscriber to THE LANCET *of over Thirty-six Years.*—Our correspondent is apparently well informed as to the particular hospital he mentions. He should write for particulars to the large infirmaries of London, also to Guy's, St. Mary's, and the Middlesex Hospitals. These three last institutions give a certificate to paying probationers at the end of one year. The London Hospital, St. Mary's Hospital, the Burton-on-Trent Infirmary, Canterbury Hospital, Bristol Children's Hospital, and Torbay Hospital give a certificate, we believe, at the end of two years. At most of the larger hospitals the candidates have to wait for admission.

Exeyzed.—We fear the coroner has too much law on his side. A fee is not allowed for inquests held upon the body of a person who has died in a public hospital or infirmary, or in a building or place belonging thereto, or used for the reception of patients, or who has died in any county or other lunatic asylum or in a public infirmary, or other public medical institution, no matter whether it be supported by endowments or by voluntary contributions.

"TREATMENT OF IMPERMEABLE STRICTURES OF THE URETHRA."

To the Editors of THE LANCET.

SIRS,—Will you allow me to endorse the valuable suggestion of Mr. C. H. Wade in his letter to THE LANCET of May 12th, about the treatment of impermeable stricture of the urethra. Some months ago the method he recommends was the only one that enabled me to pass an instrument through the utterly neglected stricture of a dipsomaniac. I had tried all the dodges of an old house surgeon of Mr. Christopher Heath with instruments both soft and hard, and was beaten. I then succeeded by passing the largest catheter I had—perforated at its extremity—down to the stricture. Drawing the penis forcibly forward on the catheter and cutting the latter across near the meatus, there was no difficulty in coaxing a bougie into the bladder, and the subsequent treatment was comparatively easy. In a recent number of the *Clinical Journal* Mr. A. E. Barker seems to me to lay too much stress on "skill" in the passing of a small soft instrument through a stricture. I remember passing an instrument when a much better man had quite failed, and I have known many instances when novices have succeeded after more accomplished surgeons have *pro tem.* abandoned the attempt. I think one cannot ignore the element of chance, as well as that of skill, in the treatment of impermeable stricture of the urethra by small soft instruments.

I am, Sirs, yours faithfully,

Great Yarmouth, May 15th, 1894. JAMES RYLEY, M.D.

ANSELL *v.* TAIT.

To the Editors of THE LANCET.

SIRS,—The following additional subscriptions have been received to aid in defraying the legal expenses in the above case:—

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I am, Sirs, yours faithfully,

G. T. KEELE, Treasurer.

81, St. Paul's-road, Highbury, N., May 29th, 1894.

THE DIFFICULTY OF DIAGNOSING INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—When we see such different opinions expressed by such prominent men in the profession as Dr. Clement Dukes and Dr. Donkin with regard to the diagnosis of certain infectious diseases, we cannot do otherwise than admit, first, that medical officers of health should be particularly chary of calling in question the diagnosis of the regular medical attendant, and, secondly, that notification is at the best but a very imperfect method of dealing with the spread of infectious disease—though with a house-to-house inspection it might prove of service.

I am, Sirs, your obedient servant,

Surbiton, May 21st, 1894. F. P. ATKINSON.

"COEXISTENCE OF INFECTIOUS DISEASES IN THE SAME INDIVIDUAL."

To the Editors of THE LANCET.

SIRS,—I read with great interest Dr. Carmichael's notes on the above in THE LANCET of May 19th. If he will refer to THE LANCET of Nov. 25th, 1893, he will find notes recorded by me of cases very similar, I think, to his own. I agree with him, that such cases are not common; neither is it common for one person to infect another with enteric fever. I suppose when such does occur the person infects himself from the patient through want of cleanliness or proper precautions.

I am, Sirs, yours truly,

Irthlingborough, May 19th, 1894. S. A. E. GRIFFITHS.

MEDICO LEGAL OBJECTIONS TO CREMATION.

To the Editors of THE LANCET.

SIRS,—In the discussions which are constantly arising as to the desirability of adopting cremation as a means of disposing of the dead, one of the chief objections urged is that thereby all evidence is destroyed which a post-mortem examination might afford in cases where evidence of "foul play" or "crime" leaks out some time after death. It is urged that in case of burial, should any information as to "foul play" leak out, the body may be exhumed and a post-mortem examination made. I write to ask if you can kindly furnish me with answers to the following questions: 1. For how long after burial in an ordinary grave and coffin would the tissues of the body be in a sufficiently preserved condition to permit a post-mortem examination to afford satisfactory evidence, say, in death by violence? 2. In cases of poisoning how long would it be before decomposition of the intestines would destroy all reliable evidence?

I am, Sirs, yours faithfully,

May 7th, 1894. J. E. H.

*** It is impossible to give a positive answer to either of our correspondent's questions. As to how long after burial in an ordinary grave and coffin the remains would afford evidence of death from violence much, of course, would depend upon the nature of the injury and the parts upon which it was inflicted. There is practically no limit as regards the skeleton in recognising fractures. It would be impossible in some cases to say whether the injuries were inflicted during life, but in fracture of the skull, where the hæmorrhage would probably be excessive, there might be evidence of this; thus, in the case of Harriet Lane, murdered by Wainwright, it was forthcoming a year after the death. The condition of the soft parts would vary much, but even here it is surprising how long the signs of injury may remain. In the case just quoted it was proved beyond doubt that the throat had been cut and the large vessels of the neck divided on one side. Moreover, a scar on the leg the result of a burn many years prior to death, was manifest. It is true some chloride of lime had been put on the body, and this would delay decomposition. With respect to poisons much would depend upon their nature. Mineral poisons, such as arsenic, can be detected at any period, but if the soft tissues had entirely disappeared the question would, of course, arise whether the poison had really entered the body, or whether it had been put in the coffin, or was even derived from the earth in which the body was buried. Its nature and quantity would have an important bearing in the investigation. With regard to organic poisons the difficulty is much greater. Morphia is so unstable that it might be impossible to ensure its detection before burial when the body is much decomposed. Strychnia, on the other hand, resists much longer the influence of putrefaction. The objection to cremation on medico-legal grounds rests mainly on the question of poisoning, and the only way in which this could be completely overcome would be by making a post-mortem examination, together with a chemical analysis, of all bodies intended to be cremated.—ED. L.

Courabyra.—The offence of using a wrong title, as in the instance quoted, is not against the rules of the Medical Council so much as against the Act of Parliament which forbids the use of titles not answering to the diplomas possessed.

Mr. C. Legg (Bexhill-on-Sea).—We have no information on the point.

THE GRIFFITHS FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly acknowledge the following additional subscriptions to the above fund?

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We are, Sirs, yours faithfully,

W. F. BROOK,
E. LE CRONIER LANCASTER, } Hon. Secs.

Winchester House, Swansea, South Wales, May 29th, 1894.

"CRACKING" JOINTS.

To the Editors of THE LANCET.

SIRS,—I am going to ask you what must seem a most elementary question, but nevertheless it is one to which I cannot get a satisfactory answer from any of my many medical brethren. Why do joints crack? I am induced to make this inquiry because my knee-joint has for the last year taken to cracking in the most alarming manner. The reports are so loud that they can be distinctly heard at the other end of my drawing-room, which is thirty-two feet long, and, indeed, they can be heard outside the door. There is no swelling or pain in the joint. I can walk, play, golf, and dance. It only cracks on *extension*. Why should it do so? And what defect, if any, does it indicate in the joint?

I am, Sirs, yours truly,

May, 1894. PERPLEXED.

Communications, Letters &c. have been received from—

A.—Dr. W. D. Anderson, Ballachulish; Mr. W. Abbott, London; Mr. W. Arthur, London; Adolphus, London; A Reader, London.

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METROPOLITAN HOSPITAL SUNDAY FUND.

"THE LANCET" SPECIAL SUPPLEMENT.

Published in aid of the Appeal to be made on Sunday, June 10th, 1894.

WHAT WOULD LONDON BE WITHOUT HOSPITALS?

HUMANITY—THE UNIVERSAL FACTOR.

A RETROSPECTIVE consideration of the initiation of the Metropolitan Hospital Sunday Fund and of the work which through its agency has been performed since 1873 raises in the mind of the most cursory observer ideas which it has been our privilege for many years to place before our readers and the public as matters urgently demanding their earnest attention. The theme of charitable giving in support of hospitals is one which must be ever fresh, because ever needed. It appeals to all classes of the community, because all of them are liable to suffer the inflictions of disease or accident, and the hospital is the foremost representative institution to bring this universal factor of human life prominently before the minds of all men.

The origin of the Hospital Sunday Fund—the idea of devotional and unsectarian charity being extended to hospitals—is perhaps one of the most ancient on record. That this giving should take the form of a general offertory on a particular day is more recent. Small communities banded themselves together for this beneficent object and succeeded so well that larger towns made the experiment; and at Birmingham, in 1859, the idea of setting apart one Sunday to make collections in all the places of worship on behalf of hospitals and dispensaries was carried to full fruition. Chiefly by the aid of the Editor of THE LANCET this movement was transplanted from Birmingham to Manchester, Liverpool, Dublin, Chester, Birkenhead, and other large towns. In dealing with a large place like London a realisation of the existence of five millions of people living close to each other was, no doubt, the subject of anxious consideration. In 1869 THE LANCET took up the parable and wrote: "The moral effect of a whole nation uniting together for the public recognition of the claims which sickness and suffering of those who are not able to pay for the medical treatment and care necessary for their restoration to health have upon those whose means are sufficient for their own and others' needs would be undoubtedly great." But it was not until early in the year 1873 that a conference of ministers and laymen representative of the various religious denominations took place in the Mansion House. The late Bishop Claughton moved, and the late Cardinal Manning seconded, the following resolution: "That a representative Council be elected by public meeting annually, consisting of not less than twenty-five clerical and twenty-five lay members, to make arrangements for the Hospital Sunday Collection in London." The date of the first Metropolitan Hospital collection was June 15th, 1873, so that this year the Fund has attained its majority.

Since 1873 its growth has been steady. By its agency within the past twenty-one years £725,647 have been collected and paid to the institutions entitled to share in the collections in the proportions recommended by the Committee of Distribution, a most impartial body. The mode of the yearly rise and fall and the gradual increase of the collections since 1873 are illustrated by the subjoined chart. Each of the squares represents a sum of £5000. The black parts represent the sums which are received year by year, not from the offertories, but by way of donations. A glance at the chart shows that in 1878 the smallest sum, and in 1890 the largest sum, was received by the Fund as the proceeds of collections made by means of the offertory. The year in which the greatest amount was received in donations was 1891, and it was in that year that the Fund made its highest record, £45,330 having been on that occasion handed over to its treasurer. It was in that year that the last Duke of Cleveland so munificently gave the Fund a donation of £5000. Since then a reference to the chart will show a very sharp decline, not altogether lower, in the offertories, but still marked in comparison with the year 1890.

PROGRESS OF HOSPITAL SUNDAY FUND.

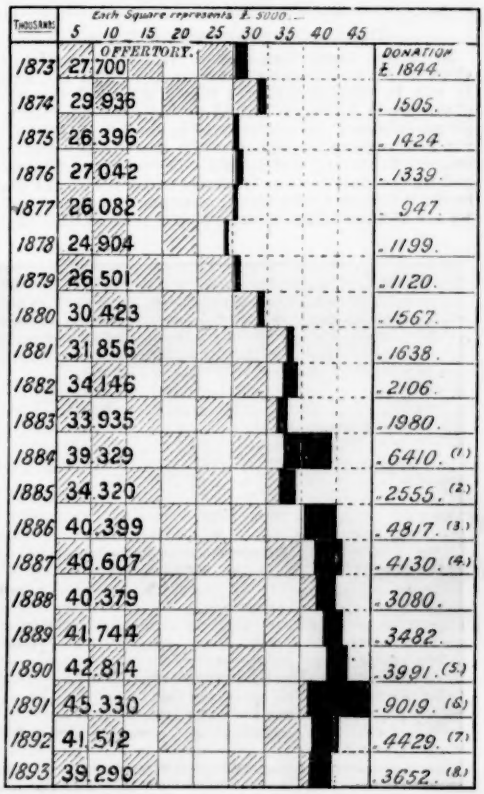

Diagram to show the amount of the collection made in connexion with the Metropolitan Hospital Sunday Fund from 1873 to 1893. Each square represents a sum of £5000. The black portions represent donations sent directly to the treasurer, the other the amounts received from offertories.

(1) In 1884 £4500 was received from the managers of the International Health Exhibition.
(2) In 1885 a special donation of £1000 was received from James Wakley, Esq., M.D., Editor of THE LANCET.
(3) In 1886 a further special donation of £1000 was received from James Wakley, Esq., M.D.
(4) In 1887 a legacy of £1000 was paid by the executors of the late James Wakley, Esq., M.D.
(5) Including legacy of £1003 14s. from the executors of the late Thomas Crouch, Esq.
(6) In 1891 donations of £5000 from the Duke of Cleveland, K.G., &c., and £1000 from Sir Savile Crossley, Bart., M.P., were received.
(7) In 1892 Sir Savile Crossley, Bart., M.P., gave a further £1000; and a legacy of £105 was paid by the executors of the late Dr. H. E. Price, of Brighton.
(8) In 1893 Sir Savile Crossley, Bart., M.P., gave a further donation of £1000.

LONDON HOSPITALS AND CHURCHES.

It is a task scarcely within the sphere even of imagination to endeavour to conceive London with so vast a population being so conditioned as to have no refuge or asylum for those of its inhabitants who have, stricken by disease, fallen out of the race in the struggle for existence. Hard would it be to set forth the consequences which would result, for they would extend not only to the individuals who themselves were under the subjection of the inexorable tyrant, Disease, but would extend to those who heretofore had escaped its cruel fangs. But within the record of written English history there never has been a time when the poor inhabiting the region of the metropolis, once circumscribed but now extended and teeming with living beings, have not had the advantage of hospitals in some form or other, and a survey of hospital work in London in these early times will, we doubt not, help forward the appeal which will be made in nearly 2000 metropolitan places of worship without respect to creed or denomination next Sunday (June 10th). This circumstance of itself affords a strong proof that churches and charities, and especially those charities which exist for the purpose of ministering to the sick poor, are indispensable and supplementary to one another. They are "all ministering spirits."

THE EARLIEST HOSPITAL ON RECORD.

In ancient times when disease overspread a nation, the churches did what they could for its alleviation and arrest. It was in obedience to the Sibyl's command that those physicians of Epidaurus arrived to assist the inhabitants of plague-stricken Rome and to found on the Island of the Tiber the first general hospital of which there is any authentic record. It has long been in ruin. The nature of its position and the fact that it is nearly always under the Tiber's waves render it difficult to obtain an illustration. By a special effort we are able to depict below all that now remains of the

The ruins of the Temple of Æsculapius.

building where "these same rites have found a yet more grateful home in the island which cleaves the waves of the Tiber, that island where the shrine is consecrated to the Serpent, in whose power resides the mystery of healing."

LONDON HOSPITALS BEFORE THE REFORMATION.

Before what is known as the period of the Reformation—i.e., prior to the abolition of the monasteries in the year 1400—nearly a dozen hospitals were in existence for the relief of the poor of London, named, as was usual in those times, after patron saints or founders. What is now known as St. James's Palace was once a hospital founded for the reception of "fourteen leprous women and eight brethren." It was the first English hospital of which we have any record. The date of its foundation is not known, so early was it in existence, but it was rebuilt in the time of Edward III. The hospital came to an end before the death of Henry VIII. for want of English lepers. In the waste lands beyond Holborn, where land was easily procured, the Queen of Henry I., "the good Queen Maud," founded St. Giles's to be a hospital for leprous men and women. The year 1123 saw instituted immediately without the walls of the City the oldest of the hospitals now existing in London, St. Bartholomew's, to be within whose precincts is to be in "the very middle of the sacred land of Medicine." St. Bartholomew's has flourished as a hospital for more than 750 years. Through its gateway, which since that time has been open to the sick poor, "passed men of the generation whose fathers saw William the Conqueror enter London." St. Bartholomew's Hospital was founded in the year 1123 by Rahere. The hospital had an independent constitution and a separate estate, though it was for some purposes under the control of the Priory of St. Bartholomew, of which the church still remains in Smithfield. It was from the beginning a hospital for the sick and not a mere almshouse. Among its earliest benefactors were Thomas à Becket, Archbishop of Canterbury, Henry FitzAilwin, the first Lord Mayor of London, William Longespee, one of the witnesses of Magna Charta, and King Henry III. The hospital was finally separated from the Priory in 1537. The revenues of the hospital passed into the possession of Henry VIII., who in 1544, on the petition of Sir Thomas Gresham, refounded it by Royal Charter and in 1547 gave it a new charter by which the greater part of its revenues were restored. At that time the hospital contained 100 beds, but since then its accommodation has been increased to seven times its original extent, and the whole of the out-patient department, which affords relief to over 150,000 patients a year, has been added. The earliest medical book, due to St. Bartholomew's Hospital, was written by John Mirfield in the latter half of the fourteenth century, and was entitled "Breviarium Bartholomei."

The wife of King Stephen in 1148 had a hospital built near the Tower called St. Catherine's, chiefly "for oldish people," a description which no doubt included many cases of chronic disease. The sister of Thomas à Becket and her husband founded St. Thomas's of Acon in honour of Thomas à Becket, who was then made a saint and a martyr. Another institution of this kind was built by Henry of Northampton in 1180 near St. Paul's. St. Mary's was erected in Bishopsgate-street Without about the year 1197.

St. Thomas's Hospital was originally built in connexion with the monastery of St. Mary Overy, upon the site of which St. Saviour's Church is now standing. Originally this hospital was built as part of the monastery, but afterwards, in 1207, it was built separately close to the monastery. There it remained until the railway at London Bridge necessitated its removal to the present site on the Thames Embankment.

In 1231 Threadneedle-street saw erected among its other buildings "St. Antony's Hospital," converted into such out of a Jewish synagogue in the reign of Richard I. St. Mary's of Bethlehem was erected in 1274 by the Sheriff of London, Simon FitzMary, for the reception of lunatics, and formed the origin of the present Bethlem Hospital in Lambeth. Elsing's Spittle, near Cripplegate, furnished help "for 100 old, blind, poor persons of both sexes, but paralytic and disabled priests to be preferred." It lasted only a little while. Finally, Denton's Hospital in 1369 provided at All Hallows, Barking, in Tower-street (under the gift of the Abbey of Barking), a hospital for the reception of acute cases of lunacy—namely, "such as should be distracted, till they got well again and recovered their wits."

Taking into account the limitations of the size of London at this period, everything points to the belief that the poor of the City were well provided for as far as the numbers of hospitals were concerned, but it is open to some question whether these institutions then afforded any medical treatment for those admitted except that of "*a delusive and irrational description.*" One statistician has expressed the belief that "no doubt can be entertained that they destroyed twice as many as they cured." But the intention of the founders was good and the care bestowed upon the poor inmates was no doubt the very best that could be obtained in these times of mediæval superstition and ignorance. A comparison of the results of the treatment in the hospitals of London and Paris from the earliest records indicates that much attention and care were displayed in the treatment of the hospital patients. "At London the hospitals are better and more desirable than those of Paris." The death-rate was always lower, a result said to be due to the circumstance that "either the physicians and chirurgeons of London are better than those of Paris or that the air of

London is more wholesome." This is the time, however, when, "if the most fashionable parts of the capital could be placed before us, such as they were, we should be disgusted by their squalid appearance and poisoned by their noisome atmosphere." Pepys speaks of the town "growing so unhealthy that a man cannot depend upon living two days." The results of the treatment are further apparent. In the year 1685, from the hospitals then in London (St. Bartholomew's and St. Thomas's), 3287 patients were discharged as cured and 461 deaths were registered, being a death-rate of a little over 12 per cent. As we have already shown, all the skill of modern science, all the improvements in the art of the surgeon were not able in the year 1892 to reduce this proportion lower than 10·3 per 100.

THE FIRST HOSPITAL PATIENT AND HIS TREATMENT.

In this regard it may be well to mention that the first hospital patient of whom there is any record was a person named Adwyne, a native of Suffolk, suffering from some paralysis, "so was contracte that he might nat use the free office, neither of hande, ne of fote." A sufferer from his youth, when he arrived at manhood, "by shippe he was brought to the chirche and put yn the hospitall of pore men" (St. Bartholomew's). The mode of treatment in this case was anything but irrational. His muscles, stiffened by long disuse, required some kind of action to restore them. "And he began yn the meyn while by the vertu of the Aposle to take breith unto hym and he desired helth by certeyn incrementys began to come ageyn. First with handys thow they were crokyd he dyd make smale workys as distaffes and antell and other wommeyns instrumentys and furthermore by succession when othir membrys used their naturall myghte he followed in greater workys," and ultimately completely recovered and exercised the "crafte of carpentrye" in London. This mode of treatment by graduated exercise is not uncommon at the present day.

THE HOSPITALS CLOSED.

It is noteworthy also that, however much in the light of what are called modern scientific conditions and methods the means at the disposal of the physician in these early times have been reviled by the unwary, it is a striking circumstance that, on the occasion of the only glimpse which history gives us of London without hospitals, it should be so picturesquely pitiful and wretched. It occurred at that time when Henry VIII. had with a high hand closed the monasteries and thus disorganised the existing system of relief of the sick poor. It is often assumed that such hospitals as were in existence at this period were exclusively almshouses, but the petition of the mayor, aldermen, and commonalty of the City of London to King Henry VIII. in the thirtieth year of his reign (1538) shows that these institutions must have contained within their walls many persons who were suffering from acute disease.

This petition pointed out to the King that "the poore, sykke, blynde, aged, and impotent persons being not able to help themselves, nor having any place certeyn wheryn they may be lodged, cherysshed, and refresshed tyll they be cured and holpen of their dyseases and syknesse," had led to a condition of things absolutely intolerable even in those days. The condition of the streets afforded a strong argument to lay before the King "the myserable people lyeing in the streete, offendyng every clene person passyng by the way with their fylthye and nastye savors." The petition shows how the Corporation looked after the interests of the sick poor. The Mansion House has ever championed their cause and taken an intelligent and sympathetic interest in providing and helping in every possible way institutions where the poor, in the words of this petition, "shall be refresshed, maynteyned, comforted, fownde, heled, and cured of theyre infyrmytyes frankly and frely by phisicons, surgeons, and appotycaryes." Our forefathers knew, also, the dangers of infection likely to arise from overcrowding, and this petition mentions the "avoydyng of the great infeccon and other inconvenyences that be lyke to happen to your cytezyns" by reason of the "greate multytude of people, some sykke, some hole, whiche dayly resorte to the paryshe churches" for aid.

The beneficent work of the hospitals, however, by this time had served to stamp upon the minds of the people the idea that the Church as a body was essentially a benevolent institution. This led to important philanthropic results. In 1722 Thomas Guy, a printer, founded a hospital near St. Thomas's, with the work of which he had become much impressed. St. Bartholomew's was at that time a thriving institution, and land on the south side of the water was cheap and easily purchased. The original building was a small one, but constant additions have been made to it.

THE FIRST DISPENSARY.

And now a new feature comes into view in connexion with the increasing wants of a population constantly growing, of improvements in civilisation constantly taking place, and in the midst of a revolution in private habits then being accomplished.

In 1696 an instrument was signed by the President of the Royal College of Physicians, most of the Elects, Senior Fellows, Candidates, &c., declaring that "no method hath been taken to furnish the poor with medicine for their cure at low and reasonable rates," and subscribing sums of money to be "expended in preparing and delivering medicines to the poor at their intrinsic value." The promoters of this "so public an undertaking" little dreamt of the extent to which in future years this form of relief would attain. Like all beneficent schemes, it met with "the vigorous opposition of a few men who thought it their interest to defeat so laudable a design." Notwithstanding this, a dispensary was erected, "being an apartment in the College set up for the relief of the Sick Poor," and managed for many years with integrity and disinterestedness. It was of this that Dr. Garth wrote:—

> "There stands a dome majestic to the sight,
> And sumptuous arches bear its oval height;
> A Golden Globe plac'd high with artful skill
> Seems to the distant sight a Gilded Pill."

It was therefore in Warwick-lane, and suggested by the College of Physicians, that the first dispensary was established where poor people could obtain free advice from the best physicians. The movement was opposed by the apothecaries, who were the practitioners of the time, and who used to charge most exorbitant prices for drugs, and also by a certain number of physicians; but the majority of the College of Physicians were at that time in favour of it, and the proposals connected with its establishment were always carried at the College meetings.

The precincts of the first dispensary.

In connexion with this form of relief of the sick poor the Hospital Sunday Fund gives grants to fifty-four dispensaries, which supplied last year medical assistance to 269,114 applicants for help.

THE FIRST OUT-PATIENT DEPARTMENT.

The dispensary described above, however, did not long withstand the interested opposition to which it was subjected and the great difficulties it encountered in finding responsible persons to organise and work it. The first dispensary at the

Royal College of Physicians continued its work until 1724 and then passed out of existence.

The need for this form of help in the metropolis had been by the existence of this institution absolutely established. The apothecaries of that time used to charge great sums for drugs, and this rendered it extremely difficult for the poor to obtain them.

This was the immediate cause of the establishment of Westminster Hospital, which began its work as a separate dispensary for the poor about that period. At this time it will be observed that the only hospitals in London for the medical and surgical relief of the sick poor were St. Bartholomew's and St. Thomas's. Westminster Hospital began its existence for the administration of out-door relief on the lines of "The Dispensary" and had no in-patients for five years after its establishment in Birdcage-walk. Beyond all, it is noteworthy that this hospital was the first in London which was founded upon the voluntary principle, which is the distinguishing characteristic of our British hospitals. St. George's Hospital was established on similar principles in 1730, it having been then found necessary to extend this means of affording relief.

What is now the largest hospital in Great Britain and Ireland—the London Hospital in the East-end—was founded in 1740 as a refuge for the sick poor, still extending the voluntary principle and the out-patient department. During the first eighteen months of its existence in Featherstone-street it administered help to 127 in-patients and 2188 out-patients. The figures indicated by the returns on Table I. for the last year are 9945 in-patients and 127,094 out-patients.

The Middlesex Hospital in 1745 began its career also as an unendowed hospital in a very humble manner in a small house in Windmill-street, Tottenham-court-road, and is now one of the most efficient and well-equipped of the great medical charities of London. The growth of the out-patient department of the great hospitals has been extreme in recent years, and the number obtaining relief from their sufferings in this way in London during 1893 has reached the enormous figure of 1,039,699 persons.

THEN AND NOW.

At the time of the establishment of the first dispensary the population of London was probably little more than half a million. Previously to the Reformation it contained a population more than forty-seven times less than it at present possesses. Where less than a dozen hospitals were found to be sufficient for the pressing wants of the London populace there are now receiving disbursements from the funds of this important charity 26 general hospitals, 5 chest hospitals, 12 children's hospitals, 6 lying-in hospitals, 6 hospitals for women, 26 hospitals for special diseases, 24 convalescent homes, 14 cottage hospitals, 8 institutions, and 54 dispensaries, in all amounting to 181 institutions whose sole and special function it is to minister to the sick poor of London.

HOSPITAL POPULATION IN LONDON, 1873–1894.

The population of London—that is, the inner London of the Registrar-General—was 3,253,785 at the census in 1871, and had increased to 4,211,743 at the last census in 1891. Based upon the rate of increase that prevailed between 1881 and 1891, the Registrar-General estimates that the population of inner, or registration, London will be 4,349,166 in the middle of this year, and greater by fully a million than it was when Hospital Sunday was instituted in 1873. The population of Greater London, which is coextensive with the Metropolitan and City Police districts, increased from 3,885,641 in 1871 to 5 633,806 and in the middle of this year will probably exceed by little less than 2,000,000 the resident population of the same area in 1873.

At the census in 1871 the number of patients enumerated in hospitals within registration London was 7410; in 1881 the enumerated number of patients was 7375. The decline in the number of patients between 1871 and 1881 was due to the severe small-pox epidemic in London in 1871, which caused an entirely abnormal increase in the number of patients in that year. The report on the last census shows that in 1891 there were 7542 patients enumerated in the metropolitan hospitals on the census night; of these patients 3023 were males and 3919 females. It is stated in the report that the enumerated patients in all the metropolitan hospitals, general, special, convalescent, and sanitary, are included in these returns.

The annual reports of the Registrar-General include tables showing the number of deaths registered annually in various classes of public institutions in England and Wales. In the report for 1873 it is shown that in eighty-four of the principal hospitals of all classes in the metropolitan area 5025 deaths were registered, and in the report for 1892 the number of those metropolitan hospitals had increased to 126, in which 7707 deaths were registered in that year. Thus, while in 1873 the proportion of deaths in London occurring in hospital was equal to 6·6 per cent., in 1892 the proportion had increased to 10·3 per cent. London in this respect shows a

STATISTICS OF HOSPITAL WORK IN LONDON DURING THE YEAR 1893.

TABLE I.—GENERAL HOSPITALS.

Name of hospital.	Hospital Sunday Fund award.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment	Died.	Out-patients' visits.	Accidents and emergencies
	£								
Charing-cross	875	2,503	961	1,346	—	147	151	92,004	349
French	298	746	188	450	25	47	36	20,435	1,084
German	534	1,456	269	721	415	95	134	54,056	—
Great Northern Central	306	1,091	283	602	65	69	129	59,797	14,652
Guy's	525	5,764	5,065		433	417	546	76,100	30,094
Italian	70	239	—	217	9	12	10	12,987	—
King's College	1,313	2,372	1 039	847	198	164	248	38,331	11,183
London	2,888	9,945	3,217	5,032	1,066	614	1,155	127,094	12,109
Metropolitan	5 5	725	170	465	—	48	92	73 2-3	4,363
Miller Hospital and Royal Kent Dispensary	219	203	23	145	6	12	17	25,488	2,9 6
North-West London	289	512	133	3 8	44	42	56	44,506	7,032
Poplar	219	443	268	146	22	27	29	26,057	9,755
Queen's Jubilee	52	189	26	148	27	11	15	22,854	3,254
Royal Free	787	1,554	470	803	60	98	183	17,207	9,513
St. George's	1,137	4,7 0	2,773		1,143	3?2	462	90,256	22,686
SS. John and Elizabeth	96	100	73	—	—	49	27	—	—
St. Mary's	1,837	4,056	1,079	2,274	285	267	405	106,226	15,005
Seamen's	787	2,582	334	1,980	—	238	145	45,165	4,000
The Middlesex	1,663	1,813	2,165		136	275	302	75 095	7,324
Tottenham	263	962	71	708	20	47	103	28,467	284
University College	1,094	3,228	732	1,781	193	189	240	160,810	34,685
West Ham	157	391	51	300	4	28	40	71,496	14,001
West London	525	1,611	1,375		—	81	155	70,814	5,701
Westminster	919	2,950	2,533		353	177	240	94,000	10,694
	17,378	49,835	9,390	18,333	4,504	3,476	4,910	1,432,447	220,733
Estimated to supply omissions	—	—	4,637	9,274	110	—	—	10,0 0	2,000
Total	17,378	49,835	14,027	27,607	4,614	3,476	4,910	1,442,447	222,733

marked contrast with the rest of England and Wales, where the proportion in 1892 did not exceed 2·3 per cent.

The census returns give no statistics which throw any light upon the increase of hospital accommodation since the foundation of the Hospital Sunday Fund. There are none to give. No increase in hospital accommodation has taken place; indeed, the returns would almost indicate a falling off. It is a most extraordinary circumstance that within the last two hundred years—say from 1681 to 1891—the population of London has increased from 500,000 inhabitants to 5,000,000. The hospitals in London two hundred years ago could accommodate one sick patient for every 133 persons residing in the city. At the present time there is not accommodation inside the walls of all the hospitals in London on a given day for one sick person out of every 660 of his fellow men. Bearing in mind the exigencies of civilisation, the need for more skilled appliances, and the greater liability to accident and disease, these figures bear ample testimony to the care which our ancestors bestowed upon ministering to the sick poor. Our vaunted enlightenment and nobler methods permit five persons out of every six who would have been relieved by the agency of hospitals in those early years to pass by unsuccoured. The reasons are very varied, but the most obvious is the want of funds. Scattered throughout the metropolitan area 2000 beds are lying idle instead of being the resting-place of some poor sick child or affording relief to some temporarily crippled breadwinner or other sufferer. Nay, more, this matter of accommodation tells largely on the time during which individual patients can be allowed to occupy the beds. Room must be had for urgent cases. Those patients whose initial difficulty has been relieved must return all too soon to the cheerless room and the empty cupboard. This, too, in an age when chivalry and self-denial are spoken of as not being yet dead.

TABLE II.—SPECIAL HOSPITALS.

Name of hospital.	Hospital Sunday Fund award.	In-patients.	Relieved	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
	£								
City of London for Diseases of the Chest	805	1,292		1,045	15	130	117	63,857	—
Hospital for Consumption	1,269	1,960		997	372	308	283	73,805	—
North London "	263	378	315	—	—	48	29	17,380	—
Royal for Diseases of the Chest	263	420		362	25	51	54	22,767	—
Royal National for Consumption	263	700	508	—	—	129	31	—	—
Alexandra for Children	175	144	17	48	25	68	5	842	—
Belgrave " "	131	225	46	125	30	12	12	9,964	—
Cheyne " "	136	80	—	8	14	49	7	—	—
East Lond. " "	507	1,533	311	682	173	95	297	56,063	—
Evelina "	432	808		577	120	68	163	26,540	273
Home for Sick Children	122	—	—	—	—	—	—	—	—
Hospital for Incurable Children	61	36	—	—	—	29	2	—	—
Hospital for Sick Children	665	1,604	602	607	278	123	253	27,698	—
North-Eastern for Sick Children	353	694	140	401	19	52	105	55,538	1,340
Paddington-green for Sick Children	140	189		162	20	19	8	31,823	2,556
Victoria " "	394	1,120		817	500	69	127	51,604	1,750
"The Vine" "	26	—	—	—	—	—	—	—	—
British Lying-in	48	189		188	—	14	1	420	—
City of London Lying-in	44	430	—	429	12	21	1	—	—
East-end Mother's Home	35	196		195	—	8	1	255	—
General Lying-in	52	—	—	—	—	—	—	—	—
Queen Charlotte's Lying-in	261	—	—	—	—	—	—	—	—
Chelsea for Women	262	665	228	351	150	11	35	15,220	—
Hospital for "	367	618	230	230	60	54	15	26,983	—
Grosvenor for Women	79	136	49	71	10	13	3	7,502	—
New " "	131	446	141	244	—	36	21	24,248	—
Royal for Children and Women	201	593		501	30	38	54	35,978	—
Samaritan Free for Children and Women	490	567	158	367	46	32	16	23,840	—
Cancer	569	786	621	74	23	73	92	10,106	—
London Fever	289	807	—	757	—	118	18	—	—
Gordon for Fistula	39	—	—	—	—	—	—	—	—
St. Mark's "	94	286	89	197	25	25	5	7,800	—
National for Diseases of the Heart	87	112	76	12	—	22	2	12,568	—
Female Lock	219	739	—	—	—	—	2	—	—
Male Lock	17	256	150	106	—	22	1	21,415	—
Hospital for Epilepsy	53	100	—	—	8	20	2	9,084	—
St. Peter's for Stone, &c.	34	389	153	224	1	8	11	32,278	—
National for the Paralysed	612	966	352	229	166	186	51	29,877	—
West-End	35	259	182	30	1	36	2	36,323	—
Central London Ophthalmic	35	—	—	—	—	—	—	—	—
Royal " "	490	1,972	200	1,717	30	55	—	116,775	2 080
Royal S. " "	57	402	11	389	5	16	1	35,780	1,560
Royal Westminster Ophthalmic	79	414		400	12	10	1	53,670	21
Western "	14	75	—	70	—	5	—	8,560	225
City Orthopædic	61	—	—	—	—	—	—	—	—
National "	39	217		162	—	54	1	2,672	—
Royal "	70	147	40	62	—	45	—	7,659	—
Hospital for Diseases of the Skin	22	7	—	—	—	—	—	15,772	—
Central London Throat and Ear	40	260	68	169	5	12	6	39,000	—
Royal Ear	4	211	12	199	—	8	—	9,017	—
Philip's Memorial Homœopathic	26	84	9	64	—	7	2	2,903	—
Hospital for Diseases of the Throat	35	526	28	473	—	20	5	37,179	—
London Homœopathic	122	445	99	255	100	37	21	7,858	500
London Temperance	499	1,036	257	681	30	65	75	15,002	10,314
The Dental	96	—	—	—	—	—	—	55,325	—
National Dental	31	—	—	—	—	—	—	27,902	—
Clapham Maternity	17	274		274	—	—	—	—	—
Estimated to supply omissions	11 747	25,871 2,555	5,112 3,503	9,261 5,205	2,305 306	2,321 420	1,938 36	1,167,242 36,588	20,560 316
Total	11,747	28,426	8,615	14,466	2,611	2,741	1,974	1,203,830	20,876

WHAT WOULD LONDON BE WITHOUT HOSPITALS?

Those who have pondered over the condition of London during the Great Plague, or considered the condition of the city without its hospitals at an earlier period, will probably be able to realise, if only in a slight degree, what would happen now if that means of dealing with disease were suddenly cut off. The picture of the battlefield of labour strewed with 7093 dead and 87,555 wounded and 7505 dying would be but an incomplete picture, for the artist could not depict the suffering of 5828 women and 2625 children who would be among the sufferers.[1] Without the hospitals, which form the ambulance of this battlefield, what individual effort is capable of coping with the evils which fall upon five millions of souls through accident, ignorance, carelessness, and crime?

The agonising cry of the doomed in a sinking vessel would appeal feebly to the listener's heart compared with the groan of pain and despair which would be heard in this great city. Hogarth's pencil might have, in a sense, endeavoured to impress his canvas with the representation of those wounded in the labour battle, amounting in the course of last year to 243,801: masons broken by falling from lofty scaffolding, mechanics torn by the cruel teeth of some whirling machine; foot passengers trampled under the feet of horses. From dangerous crossings, unprotected footways, from fire, falling stones, and similar occurrences, the number of killed and wounded yearly is greater by far than was our loss in the Soudan or Matabele wars put together. Many a hard fought battle has not produced so long a list of slain as that for which accidents in London are annually responsible. What hope would there be for the sufferers and for those dependent upon them if they were left to die in the street, subjected to long delay in being carried to their homes, perhaps not fever-free, and in which indeed no trained hands, no ready appliances, could be found to bind their wounds?

It is scarcely possible to realise all that the hospitals of London do, aided as they are by improvements in sanitary science, in averting those periodic outbreaks of epidemics which used to overspread with terrible fatality this metropolis every twenty years. Estimates placed the number of deaths which occurred at these times at a fifth of the population,

TABLE III.—COTTAGE HOSPITALS AND CONVALESCENT HOMES.

Name of hospital.	Hospital Sunday Fund award.	In-patients.	Relieved.	Cured.	Con-valescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
	£								
Metropolitan Convalescent	569	3,668	1,045	2,537	—	84	2	—	—
Bexhill-on-Sea ,,	280	1,608	413	1,168	—	26	1	—	—
All Saints ,,	481	3,591	1,420	2,024	—	91	6	—	—
Mrs. Gladstone's ,,	114	863	—	—	—	—	—	—	—
Hahnemann ,,	31	—	—	—	—	—	—	—	—
Hanwell ,,	17	—	—	—	—	—	—	—	—
Herbert ,,	31	410	237	167	—	36'	—	—	—
Homœopathic ,,	13	—	—	—	—	—	—	—	—
King's College ,,	88	444	105	298	—	18	2	—	—
Mrs. Kitto's ,,	70	311	—	—	—	—	—	—	—
,, Marsham's ,,	70	2,800	—	2,660	—	—	3	—	—
Mary Wardell ,,	96	243		241	—	—	2	—	—
Morley ,,	123	539	—	—	—	—	—	—	—
Convalescent Home for Poor Children	114	874	290	582	—	—	1	—	—
Princess Frederica's Convalescent	35	169	—	—	—	—	—	—	—
Ramsgate Children's ,,	18	—	—	—	—	—	—	—	—
St. Andrew's (Clewer) Convalescent	140	536	400	—	—	60	6	—	—
Do. (Folkestone) ,,	193	2,031	—	—	—	61	2	—	—
St. Barnabas ,,	26	—	—	—	—	—	—	—	—
St. Mary Magdalene ,,	35	82	—	—	—	25	—	—	—
St. John's Home for Convalescent Children.	26	221	—	—	—	—	—	—	—
St. Joseph's Convalescent Home	44	290	140	148	—	0	2	—	—
St. Michael's Convalescent	39	289	—	—	—	—	—	—	—
Seaside ,,	140	—	—	—	—	—	—	—	—
Beckenham Cottage	39	105	12	81	—	6	6	—	—
Blackheath and Charlton Cottage	57	148	28	102	3	8	6	3,820	8
Bromley ,,	57	175	37	110	—	11	16	—	50
Chislehurst ,,	44	—	—	—	—	—	—	—	—
Charlwood ,,	4	27	11	16	—	—	—	—	1
Eltham ,,	18	76	17	51	25	4	3	—	—
Coldash (Newbury) ,,	4	—	—	—	—	—	—	—	—
Enfield ,,	35	65	7	44	—	5	9	—	9
Epsom and Ewell ,,	53	—	—	—	—	—	—	—	—
Hounslow ,,	35	44	8	32	—	3	4	5,458	15
Reigate and Redhill ,,	52	198	30	148	23	11	4	—	46
Shedfield ,,	4	56	—	55	—	5	1	388	1
Sidcup ,,	26	87	11	62	5	6	3	274	16
Wimbledon ,,	35	99	10	80	—	7	2	34	26
Establishment for Gentlewomen	87	118	24	89	—	—	3	—	—
Hampstead	79	174	33	130	5	13	11	—	20
National Sanatorium	57	275		186	2	59	3	—	—
Royal Sea-bathing Infirmary	437	445	236	104	—	86	1	500	—
Royal Mineral Water Hospital	35	1,367	865	233	—	170	4	—	—
Invalid Asylum	52	243	80	91	5	29	2	—	—
Firs Home	31	54	14	—	—	19	21	—	—
Children's Nursing Home	—	62	13	36	—	6	1	—	—
St. Catherine's Home	35	39	—	10	—	9	6	—	—
	4,069	22,826	5,484	10,908	68	858	134	10,474	192
Estimated to supply omissions	—	2,498	1,935	4,423	—	430	75	1,500	—
Total	4,069	25,324	7,419	15,421	68	1,288	209	11,974	192

[1] 7093 dead (deaths in hospitals); 87,555 wounded (relieved and cured); 7505 dying (still in hospital); 5828 women in hospital on May 10th; 2625 children in hospital on May 10th; 243,801 accidents and emergencies.

and undoubtedly we owe it in great measure to the existence of the hospitals in London that one million of its inhabitants are not now periodically swept off the face of the earth. "At one time from Kent-street to St. James's was a dismal passage, and dangerous to see so many coffines exposed in the streets now thin of people; the shops shut up and all in morneful silence, as not knowing whose turn might be next." There is no need to describe the ravages of fever in this now multitudinous city, desolating it and thrusting murderous fangs into a million households; to picture the little victims with parched lips gasping on a truss of straw or a heap of filthy rags. There are not wanting signs that the picture may speedily be vividly realised in London, even amidst all our boasted sanitary perfection, for our hospital accommodation is totally inadequate, as

we have shown, to cope with any serious epidemic of disease; but the hospitals are the nuclei from which ready aid could be obtained in such conditions. With the increase of disease would come an increase of confusion, and its spread into the ranks of the middle classes—those who were not affluent enough to escape—would soon tell heavily upon the insurance offices in the City. Amid the confusion, and with no hospital organisation in London to aid, the end of effective municipal action would soon come, and thus would be made manifest to those who now never realise it how great are the benefits which the community owes to the organisation of the great hospitals.

It is true that in this metropolis, with the greatest railway traffic of any city in the world, railway accidents on a large scale are few and far between. What would be the result, if such took place, if no trained help were available and no organisation ready to furnish the needful men and instruments? At present it is difficult to compute the number of persons now engaged in one way or another in the hospital work of the metropolis. On this point the census returns do not throw a clear light. From it, however, we learn that 15,501 women in England and Wales were classed as belonging to "hospital and institution service" in the year 1891, and of these 3366 belonged to London.

From the statistics which, through the kindness of the secretaries of the various institutions, we have been able to collect we learn that the band of workers engaged in the hospitals in one way or another is not less than 4661. This is indeed a noble army to have in the service of the sick poor in London, to despatch to the seat of disaster in order to apply intelligently and with care remedies in the time of need. In olden times, as we have shown, the monasteries were ready to lend succour to the distressed. Their place has been taken by the great hospitals, and the want of the latter institutions in the present era would lead to nothing short of general disaster; for it must not be forgotten that it is from them comes the advice that impresses the public with the importance of cultivating sanitary principles. It is the wisdom acquired within their walls that enables a warning to be sent to every man to do his best to improve the sanitary conditions of his surroundings. It is in them that the mode of saving life and limb is taught to the rising generation of medical men, from whom, we may rest assured, much will be required, because of the rich dowry of knowledge which has been bequeathed to them chiefly through the means of the hospitals. Bread cast upon the waters returns after many days. The tenderness and the skill of the physician and the surgeon, and the assiduity of the students who give their services so freely and ungrudgingly on behalf of the sick poor, do not therefore go without reward and afford a notable illustration of the law of life and of the interdependence of mankind. New principles in medicine, a new era in surgery, and a clearer comprehension of the laws of health and of the secret processes of disease are the offspring of the tenderness, skill, and assiduity with which the sick poor have been cared for in the hospitals. Sanitary laws have been formulated, and, although even now these are often very inadequately applied, their absence, if hospitals were abolished in London altogether, would reduce us from the present high degree of civilisation, for which we are in great part indebted to the hospitals, again to a condition little short of barbarism.

Hospital Sunday raises, anew, thoughts of this kind and gives ready opportunity for any action which they may induce in the minds of the charitable. The admirable administration of the Fund, as shown by its economy and the accurate way in which its details are represented (and the figures which have been supplied to us directly from the hospitals themselves, and which are published in the annexed tables, afford ample guarantee of this), should secure for the Fund a far more liberal response alike from congregations and from individuals. Millions of money are voted yearly for the support of standing armies for carrying on wars that kill all that is finest, healthiest, and bravest of the manhood of a country; yet, despite the five millions of people directly

TABLE IV.—DISPENSARIES.

Name of Dispensary.	Hospital Sunday Fund award.	Out-patients' visits.
Battersea Provident	61	102,150
Bloomsbury ,,	9	—
Brixton and Streatham Hill	48	5,856
Brompton Provident	22	—
Camberwell ,,	83	99,997
Camden ,,	10	—
Chelsea, Brompton, and Belgrave	39	6,115
Child's Hill	9	—
City Dispensary	79	—
City of London and East London	22	—
Clapham General and Provident	33	12,270
Eastern	29	5,889
Farringdon General	39	—
Finsbury	53	33,915
Forest Hill	31	—
Gipsy Hill and Upper Norwood	13	—
Hackney Provident	6	3,145
Hampstead ,,	39	—
Holloway and North Islington	66	—
Islington	39	13,877
Kensal-town Provident	11	—
Kensington	61	19,102
Kilburn, Maida-vale, and St. John's-wood	39	4,303
Kilburn Provident Medical Institution	29	—
London	17	—
London Medical Mission	57	11,330
Margaret-street Infirmary for Consumption	9	—
Metropolitan	39	—
Notting-hill Dispensary and Maternity Provident	22	—
Paddington Provident	35	5,433
Pimlico ,,	17	—
Portland-town	17	—
Portobello-road Provident	4	1,141
Public	44	—
Queen Adelaide's	35	—
Royal General	35	—
Royal Pimlico Provident	39	61,968
Royal South London	57	19,120
St. George's and St. James's	48	—
St. George's, Hanover-square, Provident	44	2,807
St. John's-wood and Portland-town	22	20,000
St. Marylebone General	33	15,465
St. Pancras and Northern	44	3,493
South Lambeth, Stockwell, & North Brixton	44	—
South London Medical Aid Institution	14	3,924
Stamford-hill, Stoke Newington, &c.	44	33,844
Tower Hamlets	39	4,666
Walworth Provident	8	4,915
Wandsworth-common Provident	9	—
Westbourne Provident and Maternity	13	—
Western	44	—
Western General	122	24,102
Westminster General	22	25,130
Whitechapel Provident	26	18,059
	1,873	562,514
Estimated to supply omissions	—	650,525
Total	1,873	1,213,039

SUMMARY OF TABLES.

—	Hospital Sunday Fund award.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
General Hospitals	17,378	49,835	14,027	27,607	4,614	3,476	4,910	1,442,447	222,733
Special Hospitals	11,747	28,426	8,615	14,466	2,611	2,741	1,974	1,203,830	20,876
Convalescent Hospitals	4,069	25,324	7,419	15,421	68	1,288	209	11,974	192
Dispensaries	1,873	—	—	—	—	—	—	1,213,039	—
Total	35,067	103,585	30,061	57,494	7,293	7,505	7,093	3,871,290	243,801

benefited by the hospitals which exist in London, it is a standing testimony that all the religious charity in the largest city in the world cannot vote a larger supply than £39,000 for the maintenance of the noble institutions engaged in the noblest service in the world. If as many millions could be expended in the service of the noblest science in the world—the science, namely, that combats disease and death—as is yearly expended on wars that kill, then, indeed, might humanity raise its head gratefully to heaven and say, "Blessed are they that mourn, for they shall be comforted."

THE METROPOLITAN HOSPITAL SUNDAY FUND.

Amounts received and disbursed in the year 1893.

Dr. RECEIPTS *for the year ending 31st October, 1893.*

1893.	£	s.	d.	£	s.	d.
To balance at Bank of England, 1st Nov., 1892	935	7	10			
,, Balance in hands of Secretary	12	11	6			
				947	19	4
,, Collections made at Sundry Places of Worship	35,605	16	3			
,, Collections at Schools	32	15	0			
,, Donations, including £167 13s. 0d. for Surgical Appliances	3,599	16	8			
,, Interest on Deposit	52	12	0			
				39,290	19	11
				£40,238	19	3

Cr. PAYMENTS *for the year ending 31st October, 1893.*

1893.	£	s.	d.	£	s.	d.
By Awards to 119 Hospitals	32,139	15	7			
,, Awards to 8 Institutions	813	15	0			
,, Awards to 53 Dispensaries	1,828	10	6			
,, Surgical Appliances	1,883	4	6			
				36,665	5	7
,, Rent	170	0	0			
,, Fuel, Gas, and Office Cleaning	24	2	5			
,, Printing and Stationery	272	13	5			
,, Stamps and Postage	92	18	1			
,, Advertisements	277	14	8			
,, Salaries and Wages	755	12	0			
,, Sundries	8	8	6			
				1,601	9	1
,, Balance at Bank of England	1,968	15	7			
,, Balance in hands of Secretary	3	9	0			
				1,972	4	7
				£40,238	19	3

Audited and found correct, this 7th day of November, 1893

(Signed) HART BROTHERS, TIBBETTS, & Co., *Chartered Accountants*, 14, Moorgate-street.

IN the preparation of our materials for the foregoing statement of hospital work we have been greatly indebted to a large number of secretaries and other officers of the various medical charities of the metropolis for the provision of the voluminous statistics which have been here digested and exhibited in collected form. To them we desire as on many previous occasions to record our sincere thanks.